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THE INNER LIFE OF SCHOOLS.

J. H. SHUMAKER, PH. D.

SIX years ago the amount of money raised for public school purposes was a little over three millions of dollars. Last year the amount was nine millions. Taking the same ratio of increase, Pennsylvania would in 1879 raise for educational purposes alone, twenty-six millions of dollars—an amount equal to her present state debt—an amount equal to two mills on every dollar of her assessed valuation in 1870. Such a rate of expenditure cannot be kept up. That is clear. Happily it need not be; for, looking at the figures more closely, we note that during the past six years the cost of instruction has only been *doubled*, whilst the amount expended for buildings and furniture in 1872 was *four times* as much, and in 1871 *five times* as much, as in 1866. It has been emphatically "the era of school-house building." Six-sevenths of all the houses are now reported good—many of them first-class in all their appointments. The building era is passing away, and with it a heavy item of expense.

Another era infinitely more important is dawning—in fact has already dawned—the era pertaining to the inner life of schools. What is that life now? What ought it to be? Who are our teachers? What are they? How are they doing their work? These are the questions still in a great measure demanding a satisfactory answer. We happen to know that for many years they have been pressing upon the mind and heart of the School Department; but have they been pressing as their importance demands upon parents, teachers, and those engaged in the work of training teachers? We fear not.

Progress there has been, gratifying in many respects; but the most enthusiastic friends of popular education will hardly claim that this enlarged expenditure is a fair exponent of a corresponding expansion and effectiveness of teaching power. How many teachers are to-day content with the most meager knowledge outside of what is required to pass an examination? How many school boards are still willing to accept teachers possessing only the scantiest qualifications required by law? How many visits do parents and directors make when the schools are in operation? How long do they stay at each visit? How much do they know by personal observation of the inner life that pervades the place where their children attend school? What is the condition of the moral atmosphere there? What is being done to quicken intellectual activity—right thinking—right feeling? What toward developing a manhood gentle and strong, a womanhood tender and noble? In all these matters parents are presumed to feel a deep interest, and doubtless they do. But how is that interest manifested? Surely not by visiting the school only when there is trouble. Many of our best teachers lament the fact that parents so sel-

dom give teacher and pupil the encouragement of their presence.

Into these schools, with an ever swelling tide, flows the young life of our people. From them it issues transformed—purified it may be, enriched with new elements of power and beauty—polluted it may be, a dark flood of sin and shame sweeping on to eternal death. Which of these transformations it shall undergo in any given case, depends not so much on the School Department, as upon the people themselves. They select the teacher, they have the immediate supervision, they may see to it if they will, that the inner life of the school is vigorous, pure and true. If it is otherwise and is allowed to remain so, the fault—the crime, we had almost said—is theirs. The main responsibility in every district lies with the people themselves.

To the ignorant, the hectic flush on the cheek may indicate the very bloom of health, but to the practiced eye that flush reveals the presence of a fatal disease doing its deadly work. So with a school. Outside appearances may be fair and beautiful, all the petty details may be adjusted to a nicety, regularity may mark its movements, questions may be glibly asked and glibly answered, and yet in all its essential work it may be a miserable failure. That ready play of question and answer may be gotten up for special occasions. It may be the movement of an automaton, steady mechanical motion, with no life and no inherent living power. That quiet, so much admired by a certain class of visitors, may indicate the benumbing and deadening of faculties instead of their active, healthful exercise. Paralysis is quiet. The deadliest chill of winter is quiet. Even that apparent enthusiasm may be only dead matter galvanized into the semblance of life. One or two brief visits, unless the teacher is extraordinary, will hardly enable parents to form an intelligent judgment on these points.

Then, there is the "unsalaried teacher"—that boy, who is teaching his companions to deceive both parents and teachers; undermining the foundations of purity, truth and honor; giving his lessons on the playground, on the way to and from school, on walls and fences, by looks, words and gestures; slyly sneering at goodness, telling low stories, singing ribald songs, quoting bits of blackguardism and occasionally of profanity; bullying those who dare to do right; overawing those weaker than himself so that they dare not speak of his vileness; and withal so meek and innocent in presence of the teacher; so ready to lay the blame of his sins on others; so ready to plead that he was "only in fun!" How about him? Do those most deeply interested know how that boy is poisoning every thing that is sweet and defiling everything that is clean? Nearly every school has at least one such "unsalaried teacher"—some schools, alas, have many!

Does the teacher find that his best counsels are set at naught, that his wisest plans are thwarted, that his power for good is constantly counteracted, and that the moral tone of the school remains low in spite of his best efforts, he may rest assured that one of these "foul birds" is nestling somewhere near.

Parents themselves need not long remain in doubt. Let them visit the school frequently, and note whether there is life and power there, or a "dull round of daily tasks." Let them cultivate, if possible, a true sympathy with the teacher, encouraging him in his work, helping him to correct what is wrong, and sustaining him in everything that is right, even though it may not be popular. Let them note carefully the deportment of their own children out of school hours. Is that son more and more fulfilling the fond expectations of his father, or is he learning to strut and swagger, putting on airs and aping "fast" young men? Is he becoming less respectful to his parents, less kind to his brothers and sisters—or the reverse? Is that daughter becoming more sweet and womanly, more ready to enjoy home pleasures, more helpful in little home duties, or does she lavish all her smiles on company, and her frowns on the home circle? Are the children manifesting a growing love for study? Are they growing better or worse? If worse, the cause may possibly be found at home, or in associations out of school. Let it be traced out. Whether it lies at home, or with the teacher—salaried or "unsalaried"—let no pains be spared until the evil is reached and so far as possible remedied.

Scientists are of late adducing facts and arguments pretty extensively to prove that "natural selection" has led to a degeneracy of the human race; that many weaknesses and woes are directly traceable to an ignorant or willful disregard of the laws of "heredity." The conclusions reached by these men are not altogether irresistible, and yet it is pretty well established, that if unwise and ill-assorted marriages could be prevented,

many hereditary diseases would die out, the sum of human suffering would be greatly diminished, and a nobler race of men would be produced. Physically and morally they would stand high above the average of to-day. Such a result is devoutly to be desired, and in the coming ages may possibly be reached. But, in the meanwhile, taking the race as it is, weak, and erring, and sinful, and blind, oftentimes mistaking evil for good and good for evil—taking the children with these tendencies not only inherited, but in many cases unduly developed already—what had best be done? Some admixture of evil clings to everything earthly. The problem, therefore, is not, How shall we make our schools perfectly pure and good?—for that is an impossibility—but, How shall that which is bad be confined within the narrowest limits, and kept there? How shall that which is good be enabled to assert its power more and more effectively?

The following suggestions are presented, not as a sovereign remedy for the evils and imperfections that attach to the inner life of schools, but as suggestions that may be helpful toward introducing a better state of things than that now existing. That there is room for improvement, that there is need of it, no thoughtful observer will deny.

1. Let there be *more careful family training*. Children that are willful, obstinate, mischievous and disobedient at home, carry these same traits with them to school. They seldom submit gracefully to the laws found necessary there for the highest good of all. Disobedience gets them into trouble, or if allowed to pass unnoticed and unpunished, the moral tone of the school suffers. No matter how impartially and even mildly the law may be administered, offenders have no high opinion of its merits, and the teacher in his efforts to remedy the evils engendered by home neglect, or by bad home training, oftentimes receives not even the credit of honest intentions. He is made to bear the blame that rightfully belongs to family influences. Entering school is not regeneration, and no teacher can in a few days or months exorcise all the demons of misrule that have for years been allowed to assert their power in the heart of a child.

The family is the school divinely established; home training is divinely enjoined. Parents may not be able to do all they desire for their children, but they can at least see to it that the children are so trained at home that the teacher to whom they are entrusted may devote his best energies to teaching them, rather than to remedying the evil consequences of parental mismanagement. The best pupils in every school, other things being equal, are those who enjoy the best home influences. What shall be said of those parents who even encourage their children to give trouble in school?

In this connection there is one class that appeals most strongly to the sympathies of every true teacher's heart—the poor waifs who have no place they can call home. Living this year in one family, next year in another, and so on, almost friendless and alone in the world, they deserve his kindest forbearance, his gentlest dealings. If they are rude and uncultivated, that is only the more reason why he should try to find out and develop the good that is in them. They may one day rise up to call him blessed. Let him not embitter their sad lot by neglect and coldness, or by visiting others' sins upon them because they are defenseless.

2. Let every school *employ the best teacher* it can possibly secure. Let sound scholarship, good common sense, and a manly Christian character be indispensable qualifications. Sterling common sense may prove even more valuable than high intellectual culture. He must be able to deal not only with children, but with men. In the effort to make a school better he is almost sure to encounter opposition; partly because his aims and methods may be misunderstood; partly because there is so much *sham* in the world that men have become suspicious; partly because people do not like to have their prejudices disturbed; and, partly, perhaps, because the ingrained ugliness of mankind is not yet wholly eradicated. Common sense will save him from attempting impossibilities. It will help him to say and to do the fitting thing at the right moment

His character also ought to be such as to command respect. Without this his words of reproof, or admonition, or counsel, or commendation, will have but little weight with his pupils. In his presence wrong-doing ought to stand abashed, right-doing ought to receive fresh inspiration. A fool, if he have brute strength, may inspire fear, but never genuine respect. The man who has no force except such as may lie in the glibness of his tongue, or in the strength of his arm, had better betake himself to politics, or to breaking stones. He has no business in the teacher's chair.

There is a personal magnetism—a subtle intangible, spiritual power which every teacher

ought to have. It may show itself in the pure and earnest life. It may kindle in his eyes, or ring in the tone of his voice. It may flash out in a gesture. Whatever the form of its manifestation, the power must be there. Where it is wanting its absence cannot be concealed by any amount of sham. Where it is, its presence will be felt. Allied to sound scholarship it becomes almost omnipotent in shaping the mind and character of those brought under its influence. Mounting on the wings of faith it rises into sympathy with that which is divine, and humbly receives refreshing and strength from the source of all power; reaching out toward mankind, it touches human hearts, like an angel of blessing, and makes them stronger and better. This power the men who have done most for God and for the world, all have had. Wielding it, they have moved their fellows to do, and dare, and die—if need be—led on, they knew not how. Living men have it to-day, and are using it to make the earth more like heaven. Men talk about the "inspiration of a cause!" There never yet has been an inspired cause, except as inspiration was given to it by men themselves first inspired. Educational movements are not an exception.

The time is not far distant when psychological, as well as intellectual and moral, considerations, will have weight in the selection of a teacher. Put an unsympathetic, cold-hearted, unfeeling man, with inflexible will and cast-iron rules into a schoolroom to chill all the warm, generous impulses of childhood and of youth, and call *that* education? Never. Put in an easy-going, good-natured, light-headed fellow, so pulpy that he can be bent and twisted and moulded to suit the whims of his pupils and of his employers, and call *him* teacher? Not if you wish the school to prosper. But, put in a man with heart and soul and brain all alive to the momentous interests involved, and the inner life of that school will bless every member of it. And when you find such a man, keep him. A true teacher is divinely gifted for his work, and his services are cheap at any price. The lower down any school is found, the more need of a teacher endued with "power from on high."

But, where shall we find such teachers for all our schools? If they are rare—and they are—that is just the reason why directors and parents ought to be intensely anxious on the subject. Schools will never be lifted out of their low condition, except as it is done by teachers inspired for their work. Such teachers normal schools cannot make to order. Academies cannot do it; colleges cannot. Any or all of them can be helpful, but they must have proper material to begin with. They cannot create it. They cannot furnish brains, nor common sense, nor character, nor manliness, where these are wanting. They can only cultivate what is already there.

Suppose that in every school of fifty pupils, there should be found one boy or one girl indicating these rare gifts—force of character, special aptness to teach, and withal an indefinable charm to win the confidence and love of teachers and of schoolmates—that boy or that girl has a clear call to become a teacher. If the means to secure proper training for the work are wanting, let the district furnish them; not as a charity, but as a loan to be repaid at such time and in such a manner as may be agreed upon. When the money is repaid, let it be used in the same manner again, and so on perpetually. It can be secured by an insurance policy on the life of the party to whom it is loaned. Or, suppose a few wealthy men should establish a district fund, the interest of which is to be appropriated and used in this way, what incalculable good a few thousand dollars might do! And the benefaction would keep steadily increasing, preparing more teachers, and benefiting a larger number of schools, until the end of time.

3. Let there be *longer school terms*. This is the only sure means of preventing young men from making teaching a stepping-stone to other professions. The very pluck that leads a young man, in spite of discouragements, to fit himself for teaching, leads him a step further to that which pays better and furnishes steady employment. Let there be assurance that a properly qualified teacher can find work for the year, or for life if he chooses; let it be found that teaching pays as well as the average of other professions, and it will not be abandoned as it now is by hundreds of good teachers every year. The change will show itself for good on the pupils also. Half the year school, and half the year something else, does not inspire them with exalted ideas of education. No wonder there is so little enthusiasm when last year's books and slates are to be hunted up. Let them feel that study and receiving instruction are to be the business of the year, and every school that has been open only five or six months will receive new life

Children will enter with a new look on their faces. Teachers will undertake their work with a different spirit. No wonder their work is often done in a half-hearted way.

4. Let the *Bible be read and honored* in our schools. Let it have free play in all its divine and beneficent teachings. Let it be a law to which pupil and teacher bow with unquestioning obedience. If they can begin the day, or end it, with thankful acknowledgment of heavenly mercies combined with supplications for grace, mercy and peace upon themselves and others, that surely will not lower the moral tone of the school. Even a song of praise may bring nigh the spirit of the better land.

5. Let parents, and all who are interested in the welfare of our youth, devote more thought, more time, more labor and more money to the perfection of our educational system. Each school has its own peculiar traits, its own peculiar needs. If its inner life—intellectual or moral—is to be made more pure and more vigorous, it must be made so by the intelligent activity and the untiring zeal of those who have most to do with its administration. A deep sense of individual responsibility, and a faithful discharge of duty, will meet the high requirements of the case. Let the good work receive a new impulse during this school year.

MECHANICS' HIGH SCHOOL.

CHANCELLOR WOODS ON TECHNICAL EDUCATION.

IT is well known that the Legislature of Pennsylvania, at its last session, passed an Act looking toward the establishment of an institution to be called the "Mechanics' High School of Pennsylvania." The gentleman instrumental in preparing and passing the Act, was Hon. David K. Burkholder, a member of the House from Lancaster county, himself a hard-working mechanic. The Act appropriates $3,000 to pay the preliminary expenses attending the establishment of the school.

What has been done by the Board of Trustees provided for in the Act, will appear in a general way from the following extract from a circular dated Harrisburg, Aug. 28, 1873, and signed by William T. Hildrup, president, and Thomas J. Bigham, secretary. The extract is published for the double purpose of making known the information it contains of the doings of the board, and of introducing the able paper of Chancellor Woods, of the Western University of Pennsylvania, called out in response to the inquiries addressed him:

The Trustees therein named by authority of an act of the last Legislature, have organized a board to establish a Mechanics' High School in this State. The act perhaps contemplated that our board should at once establish such a school, and appoint a faculty to impart instruction therein. If so, it should have supplied us with funds greatly beyond the amount of the appropriation contained in the act creating the board. Upon full consultation we deem it wiser to carefully examine the whole subject, and in accordance with the old maxim, to make haste slowly. Industrial schools to give instruction in the mechanic arts have been successfully established in Germany and France, and one in Worcester, Massachusetts, is also said to be a success. Generally, however, in this country, the efforts to establish these special schools have not met the expectations of the public. To a limited extent polytechnic schools have succeeded in the department of engineering. But in furnishing what is the evident design of this act—skilled foremen for our Pennsylvania workshops—the want has not been supplied. Our skilled mechanics have been either self-taught in their own workshops, or procured from the industrial schools of Germany and France. So, too, all attempts have demonstrated these schools to be expensive, because the number of pupils has been small. We believe that Pennsylvania is destined to be the great mining and manufacturing State of the Union; and to preserve her ascendency in the future, we must fill her mines and workshops with intelligent, enterprising and skilled mechanics. We therefore have concluded, before definitely acting, to invite a comparison of views—and especially to ask the leading educators of our State to communicate their views in writing before the next quarterly meeting of our board on first Tuesday, 4th of November next. We will also gladly hear any gentleman who may prefer to discuss these matters orally before us, on that occasion. But to hear any number of gentlemen would be impossible and unsatisfactory to to them and to us—besides we shall probably communicate these papers to the Legislature for their as well as our own instruction, and decidedly prefer all such communications to be in writing.

We therefore invite a full expression of views in the shape of answers to the following interrogatories:

1. Can education in the mechanic arts be engrafted upon the branches now taught in our existing colleges and high schools. Or could such instruction be better promoted by the organization of special or separate schools?

2. If, in your opinion, it can be engrafted on our existing institutions, state what inducements could be proffered to meritorious young mechanics, by low-priced scholarships or otherwise, to attend upon these institutions?

3. Give us your views generally how our State can best impart to her young mechanics such instruction as the French and Prussian Industrial schools now impart.

PAPER OF CHANCELLOR WOODS.

HON. T. J. BIGHAM, *Secretary*,
Bureau of Statistics, Harrisburg, Penna.

Dear Sir.—Your communication o August 28th, inviting answers to three questions re-

lating to a school or schools of industrial science in our State, was duly received.

Answers to these questions must necessarily be either complete and full, filling a volume and, consequently, too much to be read, or so brief as to be in a measure unsatisfactory. We shall choose the latter course, assuming that you are acquainted with the character and working of such schools in this country and in Europe, published accounts of which are to be found in the libraries of most educators.

First.—"Can education in the mechanic arts be engrafted upon the branches now taught in our existing colleges and high schools? Or could such instruction be better promoted by the organization of special or separate schools?"

Such schools as are contemplated by your board give theoretical and practical education. They receive some boys and young men who have simply the elements of education. The higher the education at the time of their admission the better. Some who are to become mechanics may not advance far in the theoretical part. Their age and want of means may prevent. Still they should not be excluded from them. In the drawing school opened in Worcester, Mass., were found one man sixty-three years old, and many above forty. In some cases the theoretical and practical should be commenced and continued together, as with such as are to become mechanics; in other cases the theoretical should to some extent precede the practical. We assume that the object of the schools is to fit young men to be practical chemists, architects, engineers, metallurgists, designers and superintendents of mills of different kinds, as well as mechanics. They are to be technical schools, all the departments of which shall be in one school so that students may be changed from one to the other as their developed taste may demand. Technical education is instruction in the peculiar knowledge or special skill required in any business or occupation—the training which will render the talents of the citizen most useful to the State in that particular craft, trade or profession in which he or she is engaged, whether mechanic, farmer, sailor, engineer, teacher, merchant, architect, doctor or lawyer. As the education of the common schools fits the youth for the performance of his general duties as a citizen, so the technical school prepares him for the special duties of his trade or profession.

We have now in our State a large number of colleges, some of which have already the means for imparting the theoretical instruction demanded for all the employments for which such schools are designed, and also the practical education for some of them. Some of these colleges, as the Western University, with its excellent preparatory departments, can take the students and give them the elementary education with the practical. It is in advantages for applied science, for which large endowments are required, that these institutions are most deficient. They have the buildings, apparatus, cabinets, and libraries and endowments, worth in all from a few hundred thousand to many hundred thousand dollars each. If one-fifth of the present value of property of some of these colleges should be added to their present endowment, they would be able to carry out to a considerable extent the purposes of those most friendly to technical schools. Such appropriations should be made on condition that they be applied strictly to an increase of the advantages of applied science, to the endowment of professorships in these branches, and purchasing of models and apparatus, or the erecting and maintaining of shops. Such appropriations, while accomplishing the purposes of your board in regard to mechanical pursuits, would greatly strengthen the colleges so aided. The State would thus discharge a double duty, in establishing technical schools and strengthening her colleges. To foster her higher institutions, on which not only higher education depends but which precede and prepare the way for general education, is her duty. To establish mechanical or technical schools separate from institutions already existing, would involve larger expenditures or result in feeble and inefficient schools. The Worcester Free Institute has received more than $600,000, besides the land on which it is situated; the Boston Institute of Technology, a much larger amount. The annual income of the Worcester Free Institute from endowment is more than $23,000. The little canton of Zurich erected a building for a technical school, with 70 professors and 600 students, at a cost of $500,000, and $40,000 are appropriated annually to its support. If these schools should be established in our large cities, they will have the advantages of the numerous mills and the machinery costing many millions of dollars.

Second.—"If it could be engrafted, in your opinion, on our existing institutions, state what inducements could be proffered to meritorious young mechanics by low-priced scholarships or otherwise, to attend upon these institutions."

The act of the Legislature to establish such a school or schools implies that, whether they shall be independent or in connection with existing institutions, they will receive aid from the State. And this should be so, as the State will be profited by the increased skill of her trained citizens, and by her enlarged industries. Her hundreds of thousands of mechanics would be stimulated to higher development, and her productions would be greatly increased. The annual loss from misdirected ingenuity in our State would amply sustain many such schools of a high order. The tardy action of England in establishing such schools, and her loss of industries, should be a lesson which we should not be slow to learn. In the branch of industrial education, as in many others, Germany, Switzerland, Austria and Belgium have taken the lead, leaving England and America far behind. "In the great exhibition in London, in 1851, English workmen excelled in nine-tenths of the one hundred departments; but in the Paris exposition of 1867 they excelled in only one-tenth. During those 16 years artists mechanics, engineers and chemists, trained in technical schools, had entered the workshops of Europe, and by means of their skill and knowledge, had transferred to the continent the supremacy England had so long enjoyed At that very time a French company was building locomotives for an English railway, and iron girders for a building in Glasgow were being constructed in Belgium. England, alarmed at the report of her juries at the Exposition, at once established technical schools in many of her largest cities, and has determined that hereafter her citizens shall at least be as well educated as those of Europe, and shall have a technical training which will make the new generation of Englishmen excel the new generation of foreigners in this coming rivalry of race and nation."

To suppose for a moment that such schools would be self-sustaining would be preposterous. The history of all such schools shows that this cannot be done. If they could be self-sustaining, individuals or existing institutions would establish them and

carry them on. As it is yet wholly uncertain whether the State will furnish any aid for their establishment and support, and if so, how much, it seems hardly necessary to state to what extent we would render aid to meritorious students. Heretofore we have done this to the full extent of our means. And this we shall continue to do. The greater the aid received, the more full or partial scholarships we will grant. Worcester Free Institute gives twenty free scholarships annually for the $50,000 granted by the State. More than this can be done. If the State of Massachusetts had wholly established this school to receive free scholarships in the proportion of 20 for only $50,000, there would have been 250 free scholarships, a number greatly in excess of the present capacity of the school. If located in our city, all of the students will have the benefit of our numerous mills and manufacturing establishments, with their varied works and processes, costing many millions of dollars, which, under proper regulations, we are assured, would be open to their inspection. This advantage cannot be estimated. Drawings can be taken of the different kinds of machinery, and reports made of the different processes, with suggestions of improvements and statements of errors and faults. The offered thirty acres of land of Mr James Kelly, in case a school is located here, would afford every needed advantage for shops and dwellings.

Third—"Give us your views generally how our State can best impart to her young mechanics such instruction as the French and Prussian Industrial schools now impart."

The request implies what we believe to be the fact, that the French and Prussian schools of industry are the best in the world. If the question were, How can such schools be established here? the answer would be easy. There is, however, implied a question whether the instruction may not be imparted without the great cost of a number of such schools as Switzerland and Prussia have, and the answer has already been anticipated, that it may be given in connection with existing institutions. With additional professors in Industrial Mechanics, Industrial Chemistry, Practical Design, Architectural Drawing, Metallurgy and Mining, and a Director of the Machine Shop when needed, the teaching force would be quite full. A shop can be added if the requisite means can be furnished. To attempt all of this work at once might not be best. For the greater part of the students, theoretical instruction should first be given. For this, some of our colleges are already prepared, having Professors in Physics, Chemistry, Analytical Chemistry, Physiology, Botany, Zoology, Civil and Mechanical Engineering. The character and amount of the instruction which should precede the practice must depend on the intended pursuit, time, taste and capacity of the student. For certain pursuits it should be extended, and in all, thorough. No one can be a civil or mechanical engineer without a thorough knowledge of mathematics. Every mechanic should have a good English education, including a knowledge of physics. A metallurgist should have a knowledge of mineralogy and chemistry; an architect, of mathematics, physics and drawing. Students fitting for some pursuits will practice as they become prepared to do so. Others, as those preparing to become mechanics, as soon as arrangements can be made enabling them to do so, should work a certain part of each day, and for one or two months of each year all the time. The drudgery of the shops in which apprentices are usually required to spend so much time, should be avoided. Beginning at the lowest point, they should be advanced as rapidly as their attainments will permit. To train the eye and muscle, and give a knowledge of the processes of the works, should be the object. The schools of Europe and Worcester combine all that can be said on this subject.

The history of these schools demonstrate their rich benefits. We have already stated that England, by her delay, lost her position as a leader in manufacturing. Many of her manufactures were taken from her. The Swiss, with all their disadvantages of remoteness from coal and iron and the sea, in consequence of early establishing technical schools, took, among other things, Coventry ribbon from the English, and silk-weaving from the French, and clocks and watches from all Europe. England has now established many of these schools, and is reaping a rich reward.

At a great distance we are following in her footsteps. But one school for industrial science, established almost entirely by private liberality, exists in our country. Manual labor schools, seeking in labor a means, have everywhere been failures; technical schools, regarding labor as an end, never.

No State will be more benefitted by such schools than our own. Trained artisans are demanded for our numerous and varied manufactures. The youth are here calling for the privileges. They must become our skilled manufacturers, or they will be common laborers for imported skilled artisans. Our manufacturers attest that there are hundreds in our city demanding the education such schools are fitted to give. The professions are crowded. There is no such excess of skilled mechanics and artisans. Young men so educated will become inventors of machinery, discoverers of new processes of work, so that labor will be more effective, the processes more economical, and the resources of our rich State better developed. The hundreds of thousands that may be expended, will be restored in multitudes of youth elevated, and millions of dollars annually added to our industries The penny expended will be returned the pound. To any one who will study these schools as in actual operation, it will seem the height of folly to hesitate, or delay, or to undertake the work in a niggardly way. That something may be done worthy of our State and suited to the times, is the hope of, Yours respectfully,

GEORGE WOODS, *Chancellor.*

Western University, Pittsburgh, Pa., Oct. 27, 1873.

ARITHMETICAL REASONING.

BY PROF. EDWARD BROOKS.

I. THERE IS REASONING IN ARITHMETIC.

ALL reasoning is by means of *comparison.* Comparison requires a standard, and this standard is the old, the axiomatic, the known. To these standards we bring the new, the theoretic, the unknown, and compare them that we may understand them. The law of correct reasoning, therefore, is to compare the new with the old, the theo-

retic with the axiomatic, the unknown with the known.

This process, simple as it seems, is the real process of all reasoning. We pass from idea to truth, and from truth to higher truth, in the endless chain of science, by the simple process of comparison. Thus the facts and phenomena of the material world are understood, the laws of nature interpreted, and the principles of science evolved. Thus we pass from the old to the new, from the simple to the complex, from the known to the unknown. Thus we discover the truths and principles of the world of matter and mind, and construct the various sciences. Comparison is the science-builder; it is the architect which erects the temples of truth, vast, symmetrical, and beautiful.

In mathematics this process is, perhaps, more clearly exhibited than in any other science. In geometry, the definitions and axioms are the standards of comparison; beginning in these, we trace our way from the simplest primary truth to the profoundest theorem. In arithmetic, we have the same basis, and proceed by the same laws of logical evolution. Definitions, as a description of fundamental ideas, and axioms, as the statement of intuitive and necessary truths, are the foundation upon which we rear the superstructure of the science of numbers.

These views, though admitted in respect of geometry, have not always been fully recognized as true of arithmetic. The science, as presented in the old text-books, was simply a collection of rules for numerical operations. The pupil learned the rules and followed them, without any idea of the reason for the operation dictated. There was no thought, no deduction from principle; the pupil plodded on, like a beast of burden or an unthinking machine. There was, in fact, as the subject was presented, no science of arithmetic. We had a science of geometry, pure, exact, and beautiful, as it came from the hand of the great masters. Beginning with primary conceptions and intuitive truths, the pupil could rise step by step, from the simplest axiom to the loftiest theorem; but when he turned his attention to numbers, he found no beautiful relations, no interesting logical processes, nothing but a collection of rules for adding, subtracting, calculating the cost of groceries, reckoning interest, etc. Indeed, so universal was this darkness, that the metaphysicians argued that there could be no reasoning in the science of numbers, that it is a science of intuition; and the poor pupil, not possessing the intuitive power, was obliged to plod along in doubt, darkness, and disgust.

Thus things continued until the light of popular education began to spread over the land. Men of thought and genius began to teach the elements of arithmetic to young pupils, and the necessity of presenting the processes so that children could see the reason for them, began to work a change in the science of numbers. Then came the method of arithmetical analysis, in that little gem of a book by Warren Colburn. It touched the subject with the wand of an enchantress, and it began to glow with interest and beauty. What before was dull routine, now became animated with the spirit of logic, and arithmetic was enabled to take its place beside its sister branch, geometry, in dignity as a science and value as an educational agency. Before entering into an explanation of the character of arithmetical reasoning, it may be interesting to notice the views of some metaphysicians who have touched upon this subject.

It has been maintained, as already indicated, by some eminent logicians, that there is no reasoning in arithmetic. Mansel says, "There is no demonstration in pure arithmetic," and the same idea is held by quite a large number of metaphysicians. This opinion is drawn from a very superficial view of the subject of arithmetic, quite a common fault of the metaphysician when he attempts to write upon mathematical science. The course of reasoning which led to this conclusion is probably as follows:

First, addition and subtraction were considered the two fundamental processes of arithmetic; all other processes were regarded as the outgrowth of these, and as contained in them. Second, there is no reasoning in addition; that the sum of 2 and 3 is 5, says Whewell, is seen by intuition; hence subtraction, which is the reverse of addition, is pure intuition also, and therefore the whole science which is contained in these two processes, is also intuitive, and involves no reasoning. This inference seems plausible, and by the metaphysicians and many others has been conidered conclusive.

That this conclusion is not only incorrect but absurd, may be seen by a reference to the most difficult processes of the science. Surely no one can maintain that there is no reasoning in the processes of greatest common divisor, least common multiple, reduction and division of fractions, ratio and proportion, etc. If these are intuitive with

the logicians, it is very certain that they require a great deal of thinking on the part of the learner. These considerations are sufficient to disprove their conclusions, but do not answer their arguments; I will, therefore, examine the matter a little more closely.

Whether the uniting of two small numbers, as *three* and *two*, involves a process of reasoning, is a point upon which it is admitted there may be some difference of opinion. The difference of two numbers, however, may be obtained by an inference from the results of addition, and, as such, involves a process of reasoning. The elementary products of the multiplication table are not intuitive truths; they are, as will be shown in the next article, derived, as a logical inference, from the elementary sums of addition. The same is also true in the case of the elementary quotients in division. Even admitting, then, that there is no reasoning in addition or subtraction, it can clearly be shown that the derivation of the elementary results in multiplication and division does require a process of reasoning. Passing from small numbers, which may be treated independently of any notation, to large numbers expressed by the Arabic system, we see that we are required to reduce from one form to another, as from units to tens, etc., which can only be done by a comparison, and also that the methods are based upon, and derived from such general principles as "the sum of two numbers is equal to the sum of all their parts," etc.

The great mistake, however, in their reasoning, is in assuming that all arithmetic is included in addition and subtraction. If it could be proved that addition and subtraction, and the processes growing immediately out of them, contained no reasoning, a large portion of the science remains which does not find its root in these primary processes. Several divisions of arithmetic have their origin in and grow out of comparison and not out of addition or subtraction.* And since comparison is reasoning, the divisions of arithmetic growing out of it evidently involve reasoning processes. Ratio, the comparison of numbers; proportion, the comparison of ratios; the progressions, etc., certainly present pretty good examples of reasoning. These belong to the department of pure arithmetic. A proportion is essentially numerical, as is shown in another place, and belongs to arithmetic rather than to geometry. If, in geometry, the treatment of a proportion involves a reasoning process, as the logicians will surely admit, it must certainly do so when presented in arithmetic where it really belongs. It must, therefore, be admitted that there is reasoning in pure arithmetic.

Again, if there is no reasoning in arithmetic there is no science, for science is the product of reasoning. If we admit that there is a science of numbers, there must be some reasoning in the science. And again, arithmetic and geometry are regarded as the two great co-ordinate branches of mathematics. Now it is admitted that there is reasoning in geometry, the science of extension; would it not be absurd, therefore, to suppose that there is no reasoning in arithmetic, the science of numbers?

Mansel, as already quoted, says: "Pure arithmetic contains no demonstrations." If by this he means, and I presume he does, that pure arithmetic contains no reasoning, he is answered by the previous discussion. If, however, he means that arithmetic cannot be developed in the demonstrative form of geometry—that is, by definition, axiom, proposition, and demonstration—he is also in error. Though arithmetic is never developed in this way, it can be thus developed. The science of number will admit of as rigid and systematic a treatment as the science of extension. Some parts of the science are even now presented thus; the principles of ratio, proportion, etc., are examples. I propose, at some future time, to give a complete development of the subject after the manner of geometry. The science, thus presented, would be a valuable addition to our academic or collegiate course, as a review of the principles of numbers. In the next article, I shall consider the nature of reasoning, as employed in the fundamental operations of arithmetic.

*The older arithmeticians taught that the whole science of arithmetic was embraced in the fundamental operations of adding and subtracting. In opposition to this view, I maintain—as I have elsewhere published and will more fully elucidate in my *Philosophy of Arithmetic*—that the basis of arithmetic is triune; that the different parts have their origin in and grew out of *synthesis*, *analysis* and *comparison*.

NO MORE COLLEGES.

HOWEVER much it may seem to the friends of the numerous smaller colleges of the country, that the larger and more powerful institutions would rejoice in their downfall; and that everything which is said by those who have been connected with some of the larger colleges in reference to the smaller ones, is prompted by this feeling; we cannot

avoid the conclusion that there are too many colleges in this country, and that there have been great mistakes in the founding of at least some of them. Lest there should be chance, however, for attributing some of the feeling referred to, to us, we take this occasion to say that we heartily and earnestly sympathize with every educational institution in the country that is doing its work well. We wish that every so-called college in the country had ample buildings, apparatus, library, and plenty of students, and rejoice in every effort that is being made to secure these necessaries. Still further, we hope to labor with the friends of the various institutions for their material prosperity, and for their progress toward better methods and the accomplishment of better work in the education of American youth. But the oft-repeated cries for assistance, the occasional closing of a college, and the frequent exposures of the poorness of the advantages offered in certain institutions by those who write, not in enmity but in sadness, all tend to convince us that there is fault somewhere. Either too many colleges have been founded for the needs of the people, or they have been founded too soon, or the difficulties of starting and conducting such institutions have not been sufficiently weighed.

It may be that all these reasons have had an influence in bringing about the present condition of things. There can be little doubt, it seems to us, that many of the institutions called colleges in the country are doing little better than preparatory school work, and at the same time are cramped for want of means to make both ends meet. The instructors are poorly paid, the libraries do not grow, the buildings can hardly be kept in repair, and the offering of better advantages to attract more students is out of the question. It may be said that this state of things is inevitable when institutions are young, and that as the country grows older they will survive and flourish. All the colleges of the country, it may truthfully be urged, were weak once; all have had to go through about the same struggle for life. We are all well aware that this is to a certain extent true; but there must be a limit somewhere. The number of colleges in the country will, sooner or later, be equal to its needs, and then the argument can no longer hold. It is of course impossible to say when the number of colleges exactly corresponds to the requirements for higher education, or how far the colleges ought to lead, and by their existence create a demand for the advantages which they offer. But if the way in which colleges are sustained by endowments and financial support is any measure of the demand for them, the limit in this country has already been past, else we should not have so many starving institutions. And if the number of students which they attract is any measure of the power of colleges to create a demand for higher education, that power in this country has been over-estimated, else the classes in these institutions would exceed a dozen members apiece.

The truth seems to be that colleges, so-called, have been founded from divers reasons, but without any adequate idea of the importance of the undertaking and of the difficulties which surround it. To found a successful college or university is no child's play. Even after the grounds, buildings, library, apparatus, etc., have all been obtained and paid for, the college cannot be trusted to sustain itself. There are very few, if any, institutions in the country where the income from the students would pay the running expenses. The professors' salaries must be met partially, at least, from the endowment of the chairs which they occupy. And even in the richest institutions in the country, whose endowments are heaviest and number of students greatest, the pay of the professors is far from liberal. To start a new college is a work which should be approached with the utmost care and circumspection, the most careful measurement of resources, and a deep conviction that the institution is needed. That this has not been sufficiently done in the past is painfully evident. The recent closing of Franklin College in Indiana, the strenuous efforts that are being made to secure endowments for a number of the western institutions, and the statements of the critical condition of others which continually meet the eye, all show that the circumstances were not sufficiently considered, and sufficient preparation was not made before the institutions were started.

If this position be admitted, and the inquiry be raised, what should be done in the premises, we would say, first, let no more new colleges or universities be founded, at least in any portion of the country where starving institutions still exist. There may be cases in the newer States where new colleges may properly be started, but not even than, unless there is an evident need in the circumstances of the people, for such an institution. And we urge that even in these cases,

as in all others, the first step toward setting in motion the college or university, whichever it may called, be delayed, until ample funds for buildings, library, endowments, etc., be already in hand. The experience of Franklin College shows the folly of trusting promises. We can but recommend, in one particular, at least, the plan of the projectors of the new Central University, that is to be somewhere in the south-west, who have decided not to commence work until they have raised a million of dollars. If they think an institution, such as they project, is needed by the Methodists of the South-west, this is by all means their wisest course; yet we cannot but hope that the million will be raised, and then the new university located in connection with some of the weak Methodist colleges in that region, or better still, unite two or three of them in one, and add the million to the combination. Strengthening a few good institutions, enlarging their borders, and making them successful, seems to us to be the true sphere for the action of those who are anxious to do something for the educational interests of the country. And in any event, in view of the number of chartered colleges in the country, and the pecuniary conditions in which all, even the best, are situated, it is little short of suicidal, and foolish in the extreme, to found any more institutions nominally devoted to the higher education.

In the second place, it seems to us that something should be done with the colleges and universities which now exist. The report of the Commissioner of Education affirms that there are three hundred and seventy-two institutions in the country, qualified by law to confer the degree of Bachelor of Arts. Of this number perhaps a dozen or twenty may be called first-class colleges, and a hundred more ranked second-class. The remainder are weak in funds, weak in instructors, and weak in students. Any one who looks over the list will find plenty of colleges and universities, so-called, which have three or four instructors, and from two to ten in a class. They are doing little work, and from lack of appliances, necessarily poor work. The institutions, of course, have their friends, who are trying to sustain and build them up; but we submit, whether it would not be better for quite a share of the weak ones to drop both name and semblance of college or university, and devote themselves to the work of fitting students for the larger institutions. There is a great lack of good fitting-schools in the country, and many of the colleges, which are so poor as colleges, would, if they devoted their whole force to it, make at least medium fitting-schools. It would be something of a fall of dignity and pride, perhaps, but it would be an immense advantage to the youth of the country. We commend the thought to the serious consideration of those who are struggling to sustain some of the feebler colleges of the country. — *College Courant.*

HOW I KEEP MY SCHOOL-ROOM CLEAN.

BY ANNABELL LEE.

WHEN a school-girl, I particularly disliked the days on which I was obliged to help sweep the school-room. I came from the encounter with grimy hands, dusty hair and garments, and, if my memory serves me correctly, my temper at such times was not the most angelic. When I became a teacher, I resolved to have as few regular sweeping days as possible. I think I have found out how to keep clean without very much trouble, and my school-room is swept but once a week.

Friday is my cleaning day. When school is out at noon, I say to my little band, "Now, all that want to help me work, raise hands," and I have plenty to choose from. I select two for sweeping, and two more for a reserve when the others tire; two more shake the carpets; two scrub the vestibule-closet and out-houses, and two sweep and put the cellar in order. I put on one of the girl's sunbonnets and a big apron, and superintend the whole of it. Then we throw open the windows, dust, lay down carpets, wipe finger-marks from the white paint, and wash the zinc. I generally have the whole place fit for Queen Victoria in half an hour. Many hands make the work easy. Then we rake up the leaves, and sweep the yards, and when all is nicely done, we run down to the creek and wash, shake off the dust, have a good laugh, and fall to work over our dinners with rare appetites.

On Friday afternoon, I appoint workers for the following week, to do "general housework." They are called "house monitors." Their business is—to pass the water four times a day, go around with the hand-basin twice a day to wet all the slate-rags, sweeps the vestibule when necessary, and once a day to wash the zinc and the front door-step. Two carry water, and are called

"water monitors," and in cold weather I have a "fire monitor." His business is—to bring coal from the cellar—rake the fire, and empty and sift coal. This office is no sinecure, and the work is not the most fascinating in the world. Yet there is quite a rivalry to secure it, as well as the other situations, and I often have my monitors engaged for weeks ahead. They work expeditiously and lose very little time. They study at home so as not to miss any lessons. I sometimes give little rewards, pencils, picture cards, etc., but all seem to take pleasure in keeping the school-room neat. I have a good scraper at the door, and every morning I put out the door-mat for the accommodation of dusty feet.

Every scholar is responsible for dirt or bits, under or near his desk, and is obliged to have everything in perfect order before going out at noon or recess. No one is allowed to have eatables in his desk, and the law regarding sassafras and birch, baby-wood and chestnuts, is as inexorable as that of the Medes and Persians!

I have a few careless folks. There are one or two boys that all the soap of Colgate & Co., and all the water in the Delaware could not keep clean. They bid daily defiance to combs, towels and the soap-dish. If, after line upon line and precept upon precept, they persist in coming with unkempt hair, dirty hands and clothes, I send them home to get freshened up. But my boys are generally neat, and are capital workers. They don't lean on the broom-handle, and gossip and giggle as the little feminines do! To be sure, I have surprised more than one highland fling on the cellar floor, when I thought the errand for coal was lengthy. I have also had small toads brought up in the scuttle. I have seen heavy bayonet thrusts and charges with the broom handles. I have seen the most marvelous double-shuffles executed on the door-mat; but all these things don't depreciate their general usefulness, and I wouldn't give a copper for a boy who hasn't fun and whistle and dance in him.

No matter what work I wish done, they are always willing and pleased to help do it. I hardly know the reason. Probably because I always ask them pleasantly—possibly, because they see I am not afraid of work myself. The place in which I spend eight hours out of twenty-four must be clean and attractive. I cannot do my school-work well, or with enthusiasm, amid ugly, dirty, unsightly surroundings. I have an aversion to ragged, soiled books and broken slates—have a place for everything, and there it is kept. Why, we even brush out the flies at night! You think that verging on "old maidism." Well, say it again; I like it! Director A. says I will be wanting fly-screens next summer, and Director B. says my cellar is clean enough for a milk-cellar, and even the big, good-looking blonde gentleman, with the official title of County Superintendent, before whom I stand in fear and trembling, vouchsafed me a crumb of praise on his last official visit.

So, with my girls as neat as pinks, and my boys striving (with many inward groanings) to be methodically inclined, I sit with clean hands and conscience, under my own vine and fig-tree; and so puffed up with pride am I at my success, that I think I should not be molested, or made afraid, if the whole School Department at Harrisburg, with Dr. Wickersham at the head, were to come down some fine day and inspect the premises.

MUSIC IN TASTE-CULTURE.—No. III.

BY EMMA MAY BUCKINGHAM.

As music acts directly upon the senses, and quickens the mental powers, it is therefore highly essential to the culture of taste. "Nothing can exercise a more humanizing and refining influence on the youthful mind than the divine art. It tempers rudeness of disposition, enlarges the social circle, makes the soul more cosmopolitan, and brings us nearer the millennium," says a recent writer.

The soul is reached through the channel of *hearing*. The world is full of sweet sounds, but the uneducated ear neither enjoys nor understands Nature's voices. "A song in the heart of a child will do as much for its character as a fact in its memory or a principle in its intellect," says another learned author. Therefore, music, both vocal and instrumental, should be thoroughly taught in our schools, for its refining influence softens the rough asperities of the play-ground, enters into the home-life, permeates all grades of society, is the chief attraction of our Sabbath-schools for the young, and forms a portion of divine worship second only to the teachings of those who break the bread of life in the sanctuary; for congregational singing unites our hearts as well as voices, and draws us

nearer to each other. Singing is highly conducive to health, for it expands the lungs, strengthens the vocal powers, and elevates the spirits. It forms a pleasing hiatus in the monotonous round of school duties, dispels weariness, lassitude, restlessness, recuperates the mental energies, brushes all cobwebs of idleness and sluggishness from the brain, and renders the pupil willing to grapple afresh with the hardest and most distasteful studies. It awakens his perceptions. It gives *vim*, and energy, and *tone* to his entire character. It brings out the latent strength of his intellect, awakens ambitious desires, and is, in all respects, an assistance instead of hindrance to his progress. It also strengthens and educates his æsthetic nature. Singing gives unity of feeling to all. It makes the pupil love his school and home better, by diffusing a sunny radiance over the otherwise Dead Sea level of his school-life. In the home-circle sacred music should be cherished as a household god!

But how do you teach it in school? do you ask? I will tell you as lucidly as possible. First, I write the *air* and the first verse of some lively, appropriate song, and sing it through carefully myself; then ask the pupils to keep their eyes on the notes, and where they go up high to sing high, and when they go down to let their voices fall. At the same time I point to each note on the blackboard, where the song is written, and thus enforce strict attention.

"Ah, but suppose your pupils do not know the notes?" you ask. If they do not, my friend, they will in one lesson understand how to follow, with eye and voice, the characters which are written upon the staff. Thus they will not only learn the song by *ear*, but by *sight*.

In hundreds of the German schools vocal music is taught only in this manner. But I do not stop here. Several times each week I call their attention to the lines, spaces, different kinds of notes and rests, and of *time*, also, and after a few drills of this kind they will be able to tell you all about it, and not only sing it from memory, but copy it correctly. Mothers as well as teachers should be able to read "the notes" at sight, also to give instruction, at least in the rudiments, in order to sing the new and beautiful pieces of vocal music which appear monthly on their centre-tables, on their desks, and in the Sabbath-school. Singing creates longings after purity of heart, besides giving birth to nobler aspirations and purer ideal creations. It also tends to beautify the spiritual or hidden life, and draws our thoughts toward the Infinite.

As the natural ear, when placed over the mouth of a pearl-lined sea-shell, hears the distant tones of old ocean, so does that inner organ of the soul, when listening to the flute-like melody of young voices, catch the low under-tones of those delicious waves of harmony which make glad the city of our God.

> Perhaps—God only knows—the little child
> First stranded on the murky shores of time,
> Hears, in the lullaby or cradle hymn,
> Some angel music borne across the strait
> Which separates celestial lands from ours;
> But this we *know:* our souls will never lose
> Their hold on Heav'n until the rime of sin
> Obscures their love of music. Teach it well,
> And listen, while sweet, child-like voices fill
> Each school with choral waves of harmony,
> Until the dull Sahara of our lives
> Is merged into the Lethe, and instead
> We see a mirage of Elysian fields.

In order to be thoroughly educated, "we must cultivate the emotional as well as the intellectual nature, for the former is by far the most important part of our organization." How little real enjoyment would all the wealth of the Orient bring us without friendship, hopes, loves, sympathetic feelings, complacency, sensibility and imagination! Do the rich treasures of the intellect render the miser happy? Ah, no! As I have already intimated, in a former essay, we are, in this practical age, in danger of losing sight of the grandeur of God's handiwork, of our obligations to society. Speaking of this most useful branch of education—heart-culture—allow me to add that without it, as in the case of the unfortunate Ruloff, all research and intellectual training will be useless. Knowing, therefore, that the moral faculties are touched by the sensibilities, and that the latter are refined by *taste*, let us strive to perfect our Christian character, to so live that the inner graces of the soul will gleam out, in facial expression, like an imprisoned light shining through a translucent vase, or the aureola around the head of some pictured saint of medieval ages. There is no branch of education more useful than that of the ear and vocal organs in the formation and perfection of an æsthetic taste, or of heart-culture.

Honesdale, Pa.

THE consumption of iron of all kinds in the United States in 1872 is estimated at 4,311,500 tons, of which the railroads are put down for 2,478,500 tons. Pennsylvania alone made 702,819 tons.

OUR SCHOOL-HOUSES.

NOTWITHSTANDING the fact that the last few years are remarkable chiefly for the great expenses incurred in the erection of a large number of fine school-houses, it is nevertheless true that in many of the very cities and towns in which these expensive buildings are found, children are often crowded into small, ill-ventilated school-rooms, in numbers out of all proportion to their capacity to accommodate. It not infrequently happens that so much money is expended upon one school building, as to virtually prevent the erection of *others*, equally necessary; nay, so much and such determined popular opposition is frequently engendered by this course, as seriously interferes with and cripples the educational operations of those districts. It is, however, probable that the era of extravagant building is passed, and it is not at all unlikely that the opposite extreme will be indulged in, in the more immediate future.

If this view is correct, it follows that there is great danger that unless proper care is exercised, irreparable injury may be inflicted upon some communities. The question now arises, what can and what ought the State to do to prevent the erection of school-houses entirely too small and unsuitable for the purpose? As the matter now stands, the State can do no more than recommend to Boards of Directors the adoption of plans provided by the department. Without, for the present, entering into the merits of the "Pennsylvania school architecture," which, by the way, are seriously questioned in some quarters, suffice it to say that the power of the department being limited to mere recommendation, any Board may erect as unsuitable a building as it pleases; it may pen children into a hut not fit for cattle, it may crowd a hundred into a room not large enough for fifty, it may build too small by half, or in short, provide the most insufficient and objectionable school accommodations imaginable, and there is no remedy to prevent its measures from being consummated.

The evil effects of over-crowded school-rooms are the more to be guarded against as they are generally inflicted upon the smallest, and hence not only the most easily and permanently affected, but also the most helpless scholars. In fact, the high and grammar schools are generally provided with good rooms, while primary schools receive but little consideration at the hands of school officials.

Moreover, many of the evils now attributed to defective instruction, long sessions, and overtasking pupils, are the results of over-crowded school-rooms and consequent vitiated air inhaled by the pupils.

Now, if the State has the right to compel schools to be kept open five months in the year, it seems as though it should have the additional power to prevent the evils above spoken of. Nor would this be very difficult. What is wanted is not the power to compel the adoption of this or that plan of building. All that is necessary is the authority to perscribe how many square feet of surface, and how many cubic feet of space must be provided for each scholar in the room, how many scholars may be placed in the care of one teacher, and the means of ingress and egress. Is it impossible to accomplish this by legislation? Is it objectionable, and if so, why? Shall a citizen have no appeal against the short-sighted, penurious policy of over-crowding primary schools adopted by Boards of Directors who can afford to send their own children to private schools? Is it right to tax him to support hot-beds of disease and death? Is it reasonable to ask him to support schools so unhealthy as to undermine the strongest constitution with which nature has endowed his children, and to prevent mental activity and growth?

ADVOCATE.

EXAMINATION IN COLUMBUS.

THE following questions were recently presented to a class of applicants for certificates to teach in the public schools of Columbus, Ohio. The sets of questions were prepared by the different examiners, and hence are not uniform in their requirements. The lowest average per cent. of correct answers was in arithmetic, and the next in orthography—in reply to the five questions. Only the applicants for positions in grammar schools answered the questions in physics and botany. The examination continued two days.

THEORY AND PRACTICE.

1. What is meant by the objective method of teaching?
2. Why should this method be used in teaching little children?
3. What do you understand by teaching a rule inductively? Give an illustration.

4. What are the advantages of the written method of teaching spelling?

5. What are the characteristics of a good question? Of a good answer?

6. What ends should the teacher seek to attain in the government of a school?

7. What is your opinion of the "self-reporting" system?

8. What are the objects of punishment in school?

9. What is your opinion of the use of prizes as an incentive to study?

10. What moral qualities should the teacher carefully cultivate in his pupils? How can this best be done?

ORTHOGRAPHY.

1. Into what three general classes are the elementary sounds of the English language divided? Give examples.

2. What sounds compose the words *again* and *bouquet?* Write each word phonically.

3. How many and what sounds has *ch?* Give examples.

4. What is a diphthong? Give examples of *proper* and *improper* diphthongs.

5. Divide the following words into syllables, mark the accent, and also the vowel sound in each accented syllable: *inquiry, industry, interesting, irrevocable, maintenance.*

—The following words, pronounced by the examiners, were spelled by the examinees in writing: arrogant, abhorrence, pursuing, inflammable, antecedent, votaries, irascible, niggardly, unsullied, connoisseur.

READING.

1. What is emphasis?

2. How may errors in emphasis be best corrected?

2. What is meant by inflection?

4. What three conditions are essential to the correct reading of a sentence?

5. When may "concert reading" be used with advantage?

[Each applicant also read selected paragraphs.]

GEOGRAPHY.

1. Give two proofs of the spherical form of the earth.

2. In what direction does the earth rotate on its axis, and how many degrees does it move per hour?

3. What would be the relative length of day and night if the earth's axis were perpendicular to the plane of its orbit?

4. Which pole of the earth is now in continual darkness? Which will be next December? Why?

5. What are the three principal causes or circumstances which affect climate?

6. Why do so few large rivers flow from the Western Continent into the Pacific Ocean?

7. Name all the States that border on Lake Erie.

8. Name the four largest cities in the Mississippi Valley, and give the location of each.

9. Name all the countries of Europe that border on the Mediterranean Sea (not including the Black Sea).

10. Draw an outline map of Ohio, locating the four principal rivers and the five largest cities.

ENGLISH GRAMMAR.

1. Write the possessive form of the plural number of *child, parson, lady.*

2. Give all the participles of the verbs, *go* and *write.*

3. What is a regular verb?

4. What is meant by the person of a verb?

5. Why are not intransitive verbs used in the passive voice?

6. What parts of speech may the word *that* be? Give examples.

7. What is the mode and tense of each of the verbs in the sentence, "Let justice be done though the heavens fall."

8. Give the case and government of the nouns in the sentence:

"And twilight gray,
Had in her sober livery all things clad."

9. Parse the first two words in the sentence: "Being poor, he was industrious."

10. What is the difference between a compound sentence and a complex sentence? Give examples.

ARITHMETIC.

1. In simple subtraction when the figure in the minuend denotes a number less than that in the subtrahend, how is the operation performed, and on what principles does it depend?

2. What is the difference between simple, compound and denominate numbers?

3 Explain the principles involved in inverting the divisor in the division of fractions.

4. A ship starts from a point in the North Latitude 15° 20′ and Longitude West from Greenwich 20° 45′, and sails to a point South Latitude 30° 50′ and Longitude East from Greenwich 10° 30′; has the vessel gained or lost in time, and how much?

5. Reduce the following expression to a decimal fraction, carrying it to four decimal places:

$$\left(\frac{5\frac{1}{3}}{7\frac{1}{3}+\frac{1}{2}} \times \frac{\frac{1}{3}\text{ of }2\frac{1}{2}}{4\frac{1}{4}-\frac{2}{3}}\right) \div \frac{25}{3}$$

6. The average enrollment in a school for one week is 75 scholars, the average attendance is 48; what is the per cent. of attendance.

7. "$256 00. COLUMBUS O., *April* 10, 1873.

"Nine months after date I promise to pay to the order of John Doe two hundred and fifty-six dollars; value received. RICHARD ROE."

What was the legal value of the above note on the day it was given?

8. What is the above note worth now at a bank discounting it at 8 per cent per annum?

9. Bought Hocking Valley Railroad stock at 40 per cent. below par, and sold it at 20 per cent. above par; what was my gain per cent?

10. The surface of all the sides of a cubical box is 1176 square inches; what is the length and breadth of one side?

HISTORY.

1. What were the results of the French and Indian war?

2. How and from whom was Florida acquired as a possession of the United States?

3. What do you understand by a "protective tariff"?

4. Name all the wars in which the United States has been engaged, and the causes of each.

5. Give the names of the Presidents in their order, the length of time each served, and the year each was elected.

CONSTITUTION OF THE UNITED STATES.

1. What are the three branches of the United States Government, and in whom or what is each branch vested?
2. What are the general functions of each branch?
3. Describe the method of choosing a President of the United States?
4. What are the various provisions for supplying the place of the Chief Executive of the Government in the event of his death or removal from office?
5. How can an alien become a citizen of the United States?

PHYSICS.

1. Explain the principle on which the steam-engine operates.
2. Which is the best solvent, hot water or cold, and why?
3. What is a barometer? Explain the principle on which it acts.
4. What are the main principles on which Morse's Electric Telegraph depend?
5. What do you understand by the correlation of forces? Give illustrations.

BOTANY.

1. What are stipules?
2. Define venation.
3. Name the parts of a grass leaf.
4. Name the different leaves on the blackboard. (Fig. 1, 2, 3 and 4.)
5. Name and draw at least five different shapes of stems.

DRAWING.

1. In drawing horizontal lines, how should the arm be held?
2. In drawing vertical lines, how should the arm be held?
3. What is an inclined line? In how many directions can it be drawn? Give an example?
4. How can you ascertain the inclination of a line? Give an example.
5. Draw and shade the example given on the blackboard.

PENMANSHIP.

1. What is the first instruction to be given in teaching writing?
2. Define *base line, head line.*
3. Name the three simple movements in writing.
4. Write a set of capital letters.
5. Give the analysis of the capital T.

Write the following as a specimen of your penmanship: "Too low they build, who build beneath the stars."

MUSIC.

1. Of how many lines and spaces does the musical staff consist?
2. On what line is the G clef situated?
3. Write the scale of C major with quarter notes in $\frac{3}{4}$ time.
4. If we number the C scale, counting C one, which are the two small steps (seconds) in letters and numbers?
5. What scale follows the C scale in sharps?
6. What is the large second from C?
7. Write the signature and scale of G major in $\frac{3}{4}$ time.
8. What does each measure contain in $\frac{3}{4}$ time?
9. How does a dot influence a note after which it stands?
10. Analyze the music on the blackboard.

We add, from the *Ohio Ed. Monthly*, the answers to the questions on "Theory and Practice," given by one of the applicants—a lady of five years' experience in teaching. The time allowed was about one hour.

THEORY AND PRACTICE OF TEACHING.

1. By the objective method of teaching is meant that method which aims to instruct by means of objects. It aims to bring the object before the children in order that from this tangible object they may obtain real knowledge.

2. This method should be used in teaching children because it brings into use the perceptive faculties, through which we must necessarily first obtain our knowledge of the outer world, and, of course, these faculties must be first cultivated. The children remember better that knowledge which they obtain by the use of their senses, in examining visible, real things.

3. By teaching a rule inductively, we mean teaching by means of example; that is, explain an example so thoroughly that every pupil understands every step; then allow each one in his own language to tell how he performs the example, which is really the rule. By correcting the manner of expression, dropping unnecessary words, they will very soon see that they themselves have made a rule which is almost precisely like the one given by the author.

4. We make use of our knowledge of spelling almost entirely in writing. Consequently a large part of our drill in teaching spelling should be written. Then, too, in spelling we are guided a great deal by the form of a word, and this form is only brought before us by writing and printing. Another great advantage is, that it gives a drill in both spelling and writing. In other written exercises, want of time necessitates hasty, and consequently, careless writing; but in a spelling exercise, the exercise is never or should never be so long but that ample time may be given to its reproduction as a carefully written exercise. In oral spelling, the teacher may misunderstand the pupil; in written spelling there is no possible chance for misunderstanding.

5. A good question should be carefully worded, in order that there may be no ambiguity: it should be comprehensive, with a definite aim A good answer should be a complete sentence, comprehensive, entirely answering all parts of the question, but still as short and concise as the question will admit.

6. A teacher should, in the government of a school, maintain that order which is necessary to the progress of her school. She should endeavor to instill into her pupils a love of order and honor, and in order to do this, she must govern as far as possible by mild yet firm means. No teacher can do this until she can command the full respect of her pupils.

7. The "self-reporting system" is, as a system, injurious to a school. In a school where there is a high sense of honor, it might be used, but even then, with an ambitious scholar, there may be a temptation to give a slightly incorrect report. With a majority of schools, there is not that keen sense of honor which will justify the self-reporting system. While some will in every case conscientiously report correctly, others will not, and thus injustice is done, and that, too, in no innocent way. We ought not thus to lead our scholars into temptation.

8. The objects of punishment are: 1. To preserve order by placing a penalty on all that tends to destroy order. 2. To discipline the scholar, that he may learn that most difficult of lessons—to govern himself.

9. The use of prizes as incentives to study depends upon the school. In a school where there is little disposition to study, little life, they are sometimes of advantage. As a general thing, however, the pupil studies more for the prize than the knowledge; and his education, instead of being a drawing out of his faculties, is really a cramming in, and at present we have, at any rate, too much cramming and not enough of real thought.

10. A teacher should endeavor to cultivate truth, honor, love of country, good laws, and of God. This is a work of patience, and how it can best be done is a hard question. The teacher must be thoroughly imbued with a love of all good things herself, and by "line upon line," "precept upon precept," as occasion may offer, strive to lead those who are committed to her care to be true to themselves, to their fellow-men, and to their God.

EDITORIAL DEPARTMENT.

THE SCHOOL JOURNAL.

LANCASTER, DECEMBER, 1873.

J. P. WICKERSHAM, ... J. P. M'CASKEY.

CONTRIBUTORS.—Let no one fail to read thoughtfully Dr. Shumaker's article in this number on the "Inner Life of Schools." The subject is well chosen, and its discussion admirable. We have of late years devoted much time and money to the improvement of the outside mechanism of our system of public instruction; it is high time more attention should be given to its inner workings. Dr. Shumaker is, we trust, but the pioneer of a new line of effort.

Technical Education is now beginning to attract in this country the attention it deserves. Chancellor Woods' paper treats the subject in a concise but comprehensive manner.

Prof. Edward Brooks, of the Millersville State Normal School, begins in this number a series of five papers on "Arithmetical Reasoning." The lovers of Metaphysics, as well as the the lovers of Mathematics, will find food for thought in these papers; and, withal, they contain valuable lessons for teachers.

Annabel Lee, a favorite with the readers of the JOURNAL, and whose article in our August number on "How I Made My School Attractive," was widely copied, tells in her own sprightly style, "How I Keep My School-Room Clean." Miss Emma May Buckingham gives us another good article on "Music in Taste-Culture." And several other contributors favor us. Indeed, we take pride in thinking this number one of our best.

THE EDITOR of the *Popular Science Monthly*, in an article in the November number on the "Relation of Body and Mind," has this to say of the teacher and his preparation for his work:

He who aspires to the noble work of developing a human being must take the whole nature of that being into account. He has no right to cleave it asunder and throw away one part of it, especially that part which is the organism of life, and brings the individual into relation with the universe. The teacher who has only attained an intellectual comprehension of certain branches in which he is to give instruction, has hardly entered upon his preparation. As we have elsewhere written: "Education is an affair of the laws of our being, involving a wide range of considerations—an affair of the air respired, its moisture, temperature, density, purity and electrical state in their physiological effects; an affair of food, digestion and nutrition; of the quantity, quality and speed of the blood sent to the brain; of clothing and exercise, fatigue and repose; health and disease, or variable volition and automatic nerve action; of fluctuating feeling, redundancy and exhaustion of nerve-power, sensuous impressibility, temperament, family history, constitutional predisposition and unconscious influence; of material surroundings, and a host of agencies which stamp themselves upon the plastic organism and re-appear in character."

MR. W. H. SHELLEY, Superintendent of schools of the borough of York, since returning from his European trip of last summer, has written two lectures, one upon "London" and another on "The Rhine and Switzerland," which he will deliver at Institutes during Christmas week. Both contain educational notes made while abroad.

AN interesting feature of the Institute session at Lancaster, was the course of lectures on Natural Science, by Prof. Breneman. The matter presented was such as to fix the thought and awaken the interest of the growing teacher. The Professor puts his points very clearly, but it is in the direction of experiments that he especially excels.

THE history of the development of the different sciences points clearly to the mode in which they should be taught. The human mind acquires knowledge by its own unaided efforts in the same way that it best acquires it from books and teachers. A child among us is the man of a barbaric stage of civilization. The following extract from Mr. Galton's Tropical South Africa, will exemplify this doctrine with respect to arithmetic:

When the Dammaras wish to express four they take to their fingers, which are to them as formidable instruments of calculation as a sliding rule is to an English school-boy. They puzzle very much after five, because no spare hand remains to grasp and secure the fingers that are required for units. Yet they seldom lose oxen; the way in which they discover the loss of one is not the number of the herd being diminished, but by the absence of a face they know. When bartering is going on, each sheep must be paid for separately. Thus, suppose two sticks of tobacco to be the rate of exchange for one sheep, it would sorely puzzle a Dammara to take two sheep and give him four sticks. I have done so and seen a man put two of the sticks apart, and take a sight over them at one of the sheep he was about to sell. Having satisfied himself that one was honestly paid for, and finding to his surprise that exactly two sticks remained in hand to settle the account for the other sheep, he would be afflicted with doubts; the transaction seemed to come out too "pat" to be correct, and he would refer back to the first couple of sticks; and then his mind got hazy and confused and wandered from one sheep to the other, and he broke off the transaction until two sticks were put into his hand, and one sheep driven away, and then the other two sticks given him, and the second sheep driven away.

Any one can see that the Dammara is as a little child learning to count. The small amount of arithmetic he knows he has learned from objects; and as nature has taught him, so the child should be taught.

WHY do not more young men go to college? It is admitted that our colleges as a whole have not kept pace with the progress made in our common schools. Why? Dr. McCosh says, "The grand difficulty which colleges have to contend against arises from there being so few schools fitted to prepare young men for them." But why are there not more schools of this character? For the reason, we venture to suggest, of a want of full sympathy between the colleges and the schools immediately below them, and a want of conformity in their respective courses of instruction.

In former years, before our public school systems had reached their present stage of growth, the colleges were fed by students prepared in academies, of which large numbers flourished in every thickly settled section of the country. These academies were generally founded and taught by graduates of colleges. They were in most cases denominational, as were the colleges. The church controlled, in the main, both classes of institutions, and they worked together in entire harmony. Boys in the academies were encouraged to prepare for college, and their studies were directed to that end. The academies, indeed, were preparatory schools for the colleges.

Subsequently, the systems of education established by the State began to develop into graded schools, high schools, and the weaker academies that stood in their way were pushed to the wall and began to die. With this new class of "upper schools" there came different teachers and different courses of study from those of the old academies. The teachers, instead of being college-bred men, were mostly men trained in the common schools themselves, or in normal schools in close sympathy with them. The courses of study were planned by men of affairs, serving on school-boards, and looked much more to practical business than to literary culture or mental discipline. Boys left the high schools, not to enter college, but to commence work in some office, store, shop or mill. The consequence of all this was largely to decrease the number of young men seeking a collegiate education, and to create a breach between colleges and the schools immediately below them.

In large measure the state of things just described applies to the present time, and explains why no more young men go to college. But the high schools and the colleges are much nearer together than they were a few years ago. A good degree of sympathy now exists between their respective friends. Both are beginning to take broader views of education, and a sense of mutual dependence is springing up. The colleges are establishing scientific and technical courses of study that complement and complete the practical courses of the high schools. The high schools, too, brought

into closer communion with the classic learning and literary culture of the colleges, are directing more attention to the study of Latin and Greek. The two classes of institutions are doing one work, and the future seems to promise that they will mutually co-operate in doing it. Hasten the glad day.

EDUCATION IN THE NEW CONSTITUTION.

THE frame of the new Constitution about to be voted upon by the people makes a number of changes in relation to education. The principal ones are the following:

It changes the name of Superintendent of Common Schools to that of "Superintendent of Public Instruction," makes the Superintendent of Public Instruction a member of the Executive department, provides for his appointment by the Governor, and increases his term of office to four years.

Appropriations to public schools are allowed a place in the general appropriation bill, with the appropriations for the expenses of the State government.

Appropriations to Normal Schools established by law, for the professional training of teachers for the public schools of the State, are excepted from the provision that requires appropriations to any charitable or educational institution not under the absolute control of the Commonwealth, to pass the Legislature by a vote of two-thirds of all the members elected to each house.

The article on Education in the present Constitution reads thus:

Sec. 1. The Legislature shall, as soon as conveniently may be, provide by law for the establishment of schools throughout the State, in such manner that the poor may be taught gratis.

Sec. 2. The arts and sciences shall be promoted in one or more seminaries of learning.

The following is the article on Education in the proposed one.

Sec. 1. The Legislature shall provide for the maintenance and support of a thorough and efficient system of public schools, wherein all the children of this Commonwealth above the age of six years may be educated; and the Legislature shall appropriate at least one million dollars each year for that purpose.

Sec. 2. No money raised for the support of the public schools of the Commonwealth shall be appropriated to or used for the support of any sectarian school.

Sec. 3. Women, twenty-one years of age and upwards, shall be eligible to any office of control or management under the school law of this State.

The new article, on the whole, is to be preferred to the old one. The first section especially is much broader and more liberal than the corresponding section the place of which it is proposed to take. It confers all the power needed to secure proper legislation concerning truant, vagrant and neglected children.

We regret exceedingly that no special provision was made for laying the foundation for a higher education than that furnished by the public schools. The framers of the old constitution seem to have had broader views in this respect. We wish the old article, if nothing better could have been originated, concerning the promotion of the arts and sciences, had been retained.

The provision that no money raised for the support of public schools shall be used for the support of sectarian schools is right, but scarcely needed in Pennsylvania.

If women should be made eligible to any office, there seems a propriety in that office being connected with the control and management of schools. We hope the experiment will more than justify the expectations of its friends.

On the whole, the educational provisions of the new Constitution are an advance upon those of the old one; but the truth compels us to say that they are not all we had hoped for.

TRAINING THE CONSCIENCE.

IT is encouraging to notice the prominence given this year in the several State and National educational conventions to topics relating to the moral training of the young. The terrible truth begins to be realized that the times threaten the decay of public virtue among us. The greed for money seems to be gradually eating away the sense of honor, honesty and patriotism; and, as is natural, teachers and friends of education are looking to see whether any part of the fault can be found in our schools, and if so, are anxious to apply a remedy. One of the strongest and best expressed papers on this subject with which we have met, is that of Mr. H.F. Harrington, Superintendent of schools in New Bedford, Massachusetts, read before the Elementary Section of the National Association at its recent meeting in Elmira. We invite the attention of our readers to the concluding portion of the paper presented below:

"You have a very poor opinion of the conservative moral influence of our schools," you may say. I re-

tort, Is there anything which should lead me to hold a favorable one? Is the moral condition of the American people so pure, so progressive, so admirable, as to glorify the fountain heads of her civilization and character? Have we occasion to shake hands here to-day in mutual congratulations, as American educators, and to say "All is sound, all is auspicious; let us shout hallelujah over the brilliant results that have been achieved, and separate to tread again our familiar paths of labor, confident of a yet more magnificent future?" Ah, the eloquence has become cheap—very cheap—which bewails the decadence of the nation's virtue, the emasculation of her once world-honored manhood, the crowding infamies that disgrace the annals of her political and civic life, when we read the words of an orator, "Has it come to this, that America can undertake nothing without a scandal annexed, a suspicion at least—a Vienna Exposition, a Freedmen's Bureau, a Pacific Railway, a Presidential campaign, a Washington Treaty?" We bow our heads in abasement as we make the stinging admission, "It *has* come to this!"

But perhaps the men who have inflicted these shames are exceptional, not representative men; the great heart of the nation is still sound and healthful, and nothing impugns the moral influence of our schools. Perhaps the worst sin of the people as a whole is only their easy-going tolerance of the crimes of those in places of prominence who have betrayed the trust reposed in them. Unfortunately for this caveat, these men are not all of a single origin nor a single class. "Mr. Stillman," said Kossuth, "you must get rid of your politicians, or before fifty years they will ruin your country." But the regiments of developed rascals who have held places of trust, are not all politicians. The crimes they have committed are not all salary steals and "Ring Tweedisms." Our railroad directors water their stocks over and over to defraud the public, and misappropriate the earnings to defraud their stockholders; and in their company we are introduced into another class of society. Bank presidents embezzle the funds of their banks, and millionaire merchants manipulate their invoices to cheat the government, who have been conspicuous as leaders in churches and superintendents of Sunday-schools; and with agonized emotion we are brought into the very heart of American society on another side. The money dealers of Wall street handle stocks and gold according to the morals of the gambling saloon and the State's prison, and the door opens wide into still another circle of society. You hear lawyers of the highest respectability and culture prostituting their exalted talents in striving to turn loose upon the public once more the thieves and murderers whose guilt is clear as the noonday. You know that that have their price for such service; a price which will always command them; and through them, society makes yet another of its astounding revelations. And when we apply that critical test to the public conscience which is found in the answer to the question, How does society treat its rogues of high degree?—in what temper does it discuss their crimes?—our excuses crumble into dust, and our quivering lips are shut. Their rascalities are sugar-coated with delicate euphemisms. Their embezzlements are "financial irregularities." They did not mean to be dishonest—they have only committed the too-prevalent error of using other funds than their own. And as for themselves, they find hosts of friends to pet them in their "misfortunes." If they have wealthy relatives, their peculations or defalcations are made good, there is no prosecution, and after a season of judicious seclusion, they re-appear in full feather, good as new, to run a fresh career. Or, if they happen to be tried and condemned, petitions for pardon load the table of the Executive, before they are fairly warm in the prison uniform!

To compound a felony has come to be regarded as innocent a thing and as much a matter of course as to compromise with a failing debtor. Congressmen do not return their portion of the salary grab in response to the general denunciation, because they believe that the people are not in earnest in condemning it; because, as a periodical has pointedly expressed it, they do not think the moral damage to them in public estimation will reach five thousand dollars, the amount of the steal. Who dare say that the rogues we have been considering are not representative men? Who dare deny—to appropriate a phrase so apt, yet so terrible in its suggestiveness as to make us tremble while we make use of it—that the *dry rot* has penetrated the conscience of the land!

I think we must be prepared by this time to receive with tolerance, at least, a suggestion that our schools, as a whole, are not a vitally conservative force in connection with the public morals; that the virile manhood which gave nobility and right direction to citizenship in the days of the fathers of the republic, and which it is the paramount duty of our schools to cherish, has dropped out of the ideal of the people, and I earnestly plead with the educators of the country to aid effectively in rehabilitating that ideal. I plead with them to accomplish this, first of all and most of all, by earnest labor to get it into the hearts of the people, of school authorities, of teachers, of scholars, not as a mere superficial sentiment, but a life-inspiring principle, that the production of manhood is the crowning purpose of school culture. It is for this and this only that I have spoken. Let the arguments I have offered cover the field for which they were intended—no more, no less. Let the illustrations I have employed be pressed into no service they were not intended to perform. I do not ask that there shall be express religious teachings in the schools. I have nowhere intimated that such teaching is necessary. I do not ask that there should be less of intellectual study than now. Let there continue to be as much as ever—more, if you will; more certainly, which is quite possible in some directions, of a better kind. I do not underrate or despise our public schools. God bless them!—for they cradle, as I believe, some of the best elements of the nation's life. If I have seemed to detract from their good repute, it is because I have spoken from the plane of their magnificent possibilities, as yet untried and undeveloped.

I am fully aware of the difficulties which beset the endeavor to develop them, and content myself, therefore, with urging upon your attention that grand starting point of all endeavor, the creation of a strong, exacting public sentiment. I would have the ideal of the highest appropriate service to be rendered by our schools so dominant in the national heart, that it should keep school authorities, teachers and scholars ever under the pressure of its fervid, clamorous expectancy. I would have it so envelop the schoolroom, filling its very atmosphere, toning its activities, inspiring its life, that it should mould the scholars into a frame of plastic receptivity; and so work in the teachers' hearts that they should never enter its doors without a fresh consecration to its high be-

hests, chastening their speech, dictating their discipline, coloring all their instruction, making them watchful over their own characters as being more than anything else the producers of character, and setting each child before them as a being to be won to glorious fidelity to himself, his country and his God. Give but the ideal to dominate everywhere—as the grand starting-point—and the coveted renovation will follow, sure as the morning follows the sun.

THE SCHOOL-ROOM.

JUDICIAL TEACHING.—Dr. Schenck, in criticising the system of teaching practiced in the public schools of the city of New York, says:

The office of the teacher has become merely judicial—to decide whether the pupil knows his lesson or deserves a flogging. If the child does not understand everything without the aid of the teacher, he is a dunce. During the hour of study the pupil is left to himself; the recitation hour being devoted to reciting what he has had no assistance in learning.

This criticism is probably no more just as concerns the teaching of New York, than as concerns that practiced elsewhere; but there is a great deal in all parts of the country that goes by the name of teaching, that consists of little more than hearing and judging by recitations; and we like the name, "*judicial teaching*," applied by Dr. Schenck to the dull, dry, mechanical process, as it puts it in happy contrast with the nurturing, strength-giving, hope-inspiring, soul-culturing work that is always the result of true teaching. The teacher is not merely a judge to try and elicit evidence as to whether or not the prisoners in the class before him are guilty of not knowing their lessons. His office is a much higher and nobler one.

SCHOOL LIBRARIES.—As the youth of a Commonwealth are those in whom is vested its future power, it becomes, then, of vital importance that everything should be done which can possibly be to render this power most efficient. The State makes ample provision for the education of her children, but as the matter now stands, libraries are accessible to a comparatively small number. It is true, the higher schools are well-supplied with them, but how small a proportion of those who attend public schools ever extend their education beyond them. It is the claims of such we would urge. In many of our schools, teachers are obliged by the pressure of their duties to leave the literary culture of their pupils unattended to. If there could be in each school a library, no matter how small if it were well-selected, it would aid both teacher and pupil materially. The duties of a librarian are comparatively light, and could be discharged by the teacher without interfering with anything else, and I think most teachers would gladly do this for the sake of having their pupils supplied with good reading matter. In many studies certain books are valuable auxiliaries; in geography, for instance, many books of travel contain facts which are not mentioned in the text-books. The same may be said of every study which is pursued in school. Long winter evenings cannot always be passed in games or conversation. The saying that children do not "take to books," is, we fear, often because there are no books to take to. If there were a school library it would meet this want. "Words are the common property of all men," and by reading this property will become wholly valuable.

MRS. JOHN G. MOORE.
2031 *Brandywine st., Phila.*

DON'T BOX THE CHILDREN'S EARS.—Children's ears ought never to be boxed. We have seen that the passage of the ear is closed by a thin membrane, especially adapted to be influenced by every impulse of the air, and with nothing but the air to support it internally. What, then, can be more likely to injure this membrane than a sudden and forcible compression of the air in front of it? If any one designed to break or overstretch the membrane he could scarcely devise a more effective means than to bring the hand suddenly and forcibly down upon the passage of the ear, thus driving the air violently before it, with no possibility for its escape but by the membrane giving way. And far too often it does give way, especially if from any previous disease it has been weakened. Many children are made deaf by boxes on the ear in this way. Nor is this the only way: if there is one thing which does the nerve of hearing more harm than almost any other, it is a sudden jar or shock. Children and grown persons alike may be entirely deafened by falls or heavy blows upon the head. And boxing the ears produces a similar effect, though more slowly and in less degree. It tends to dull the sensibility of the nerve, even if it does not hurt the membrane. I knew a pitiful case, once, of a poor youth who died from a terrible disease of the ear. He had had a discharge from it since he was a child. Of course his hearing had been dull: and what had happened was that *his father had often boxed his ear for inattention!* Most likely that boxing on the ear, diseased as it was, had much to do with his dying. And this brings me to the second point. Children should never be blamed for being inattentive, until it has been found out whether they are not a little deaf. This is easily done by placing them at a few yards' distance, and trying whether they can understand what is said to them in a rather low tone of voice. Each ear should be tried, while the other is stopped by the finger. I do not say that children are never guilty of inattention, especially to that which they do not particularly wish to hear; but I do say that very many children are blamed and punished for inattention when they really do not hear. And there is nothing at once more cruel and more hurtful to the character of children than to be found fault with for what is really their misfortune. Three things should be remembered here: 1. That slight degrees of deafness, often lasting only for a time, are very common among children, especially during or after colds. 2. That a slight deafness, which does not prevent a person from hearing when he is expecting to be spoken to, will make him very dull to what he is not expecting; and 3. That there is a kind of deafness in which a person can hear pretty well while listening, but is really very hard of hearing when not listening.—*Popular Science Monthly.*

COMPOSITION, AND HOW TO TEACH IT TO CHILDREN.

THE heads under which I propose to teach this theme are as follows:

1. What is composition?
2. What should be the aim in teaching it?
3. By what means may this end be accomplished?

Composition has a subjective side, *i. e.*, a soul; and an objective side, *i. e.*, a body. Subjectively viewed, it is the construction—the building up of thought; or, it may be the development—the unfolding of thought. The first is synthetic; the second is analytic.

Objectively viewed, composition is the embodiment—the expression of thought in appropriate language.

The object or end in view in teaching composition should be two-fold: First, to lead the mind to form correct habits of thinking, *i. e.*, to lead it to think in accordance with the laws of its own nature, readily and accurately. Secondly, to lead to the acquisition of skill in expressing logical thought in clear, appropriate and pleasing language.

To secure these ends we should *begin* with the *simplest* form of composition, which is *the description of a material thing*. Now the question arises, by what method may these ends be realized in the description of a material thing? If we can find the ideas fundamental to, or the necessary conditions of, our knowledge of a material thing, and the laws in accordance with which the mind acts, we shall have a stand-point from which to determine what the method MUST be. The plan will not be an arbitrary one, but will be one which is founded on the very *nature* of *thought itself*, and which must, therefore, be the *true one*.

Let us take a simple material object, and analyze the process by which we know it, and thus find what are the ideas conditional to our knowledge.

Take an apple. I open my eyes; I behold colored extension. This simple fact implies time and space. That which I see must have a *when* and a *where* in which to exist. Then two of the fundamental ideas, which must be pre-supposed as conditional to the existence of colored extension, *i. e*, which are but *a priori ideas*, are *time* and *space*. But the colored extension is not the apple. I pass my hand over it gently; I say it is *smooth*. I grasp it more firmly, and I say it is *hard*. I allow it to rest on my hand, and I say it has *weight*. The smoothness, the hardness, and the weight, are all fixed in time, and located in space, together with the colored extension; but they are not the apple.

I smell it and find it has odor; I taste it, and find it has flavor; I cause it to fall, and learn that it produces sound. The odor, the flavor and the sound are fixed in time and located in space with the colored extension, the smoothness, the hardness, and the weight; but all these attributes, neither singly nor combined, are the apple.

These are only the signs of the existence and presence of a *being* which we call the apple. *They are not the being itself*. This is necessarily so, for these attributes, being mere relations, can not exist unless there are beings between which the relation may exist. One of these beings is a sentient soul, a *me*, an *ego;* the other a *not me*. a *non-ego*—a substance or being which we call apple.

Then another conditional idea to our thinking or knowing a material thing is the relation of *substance and attribute*. We now have the apple as a mere sensuous object. But the mind is not satisfied; it asks how came the apple *to be?* We answer, it grew, it is a vegetable production. This fact implies *cause* and *effect*. And further, we may infer that it was not always what it now is—an apple. It was first a little germ. Now what *caused* the laws of vegetable life to act upon the germ and lead to its development? There must have been a tendency to life—an *ideal* to be realized, else the warmth and the moisture could have had no effect upon it. This *deeper, final* cause is the *real cause* or design of it and is its *use*; *i. e.*, its end is found in its use.

Now having found the conditional ideas by which we *know* the object, viz.: Time, space, substance and attribute, cause and effect, and final cause and design, we may take these ideas as a basis for our description, and in doing this we may know *when* our description is complete; we shall have *criteria* from which to judge.

Now, since composition has a soul and *a body*, and the body is the mere expression of the soul, the soul must exist before it can be embodied. Then the first thing to be done is to train the child to exercise his mind in acquiring knowledge of any material object, in accordance with these principles. He will then think systematically, freely and effectually. The child will express his thoughts as he thinks. If he think properly, the correct expression will not be a difficult task, but will follow as a natural consequence. But he must be led to this systematic thinking and expression of thought step by step.

We may take any one of these conditional or *a priori* ideas as the leading one, and drop the others out of sight, except as they are necessarily implied. First, take the intuition, substance and attribute, as the leading one. Lead the child to state all the sensuous attributes of the object, first in distinct, analytical propositions, and then to synthetize the propositions, as:

The apple is red.
" " " spherical.
" " " hard.
" " " smooth.

Now synthetize the propositions, as:

The apple is red and spherical. It is hard and smooth.

Observe, too, the principles regulating the length of sentences in synthesis. All those attributes given by one sense form a distinct thought, that may be expressed in a sentence, which should *begin* with a capital letter and close with a period.

Next, the fundamental idea of space may be taken as the leading one, including the relations and the determinations of the object in space, as:

The apple is on the table.
" " " spherical.

The shorter diameter of the apple is one and three-fourths inches. The longer diameter of the apple is three and one-fourth inches. The circumference of the apple is ten inches.

SYNTHESIS OF THE PROPOSITIONS.

The apple is on the table. It is spherical, its shorter diameter being one and three-fourths inches, its longer three and one-fourth inches, and its circumference ten inches.

Now, the two exercises, *i. e.*, the one based on space, and the other on substance and attribute, may be combined as follows:

The apple is on the table. It is spherical, its shorter diameter being one and three-fourths inches, its

longer three and one-fourth inches, and its circumference ten inches. It is red and opaque. It is hard and smooth

Next, take the idea cause and effect, on which to base the proposition—*the apple grew* Then the intuition, final cause or design may be taken. The apple may be viewed as a whole composed of related parts. Thus viewed, the child is led to give the parts of the apple, as,

The apple has a peel.
" " " " pulp.
" " " " core.
" " " seeds.
" " " stem.
" " " blossom-end.

SYNTHESIS.

The parts of the apple are peel, pulp, core, seeds, stem and blossom-end.

Each part may now be described under the relations of space, substance and attribute, and final cause or design, as :

The pulp is between the peel and the core, and is one inch thick. It is white, and juicy and is used for food.

The child may now be led to synthetize all the propositions based on the different *a priori* ideas, and give a complete and accurate description, as follows:

THIS APPLE.

This apple is on the table. Its shorter diameter, extending from stem to blossom-end is one and three-fourths inches; its longer is three and one-fourth inches, and its circumference ten inches.

It is spherical and opaque. It is hard, smooth, light and cold. It has a pleasant odor and a tart-like taste. It is somewhat sonorous. It is a natural production, and is used for food.

The parts of the apple are peel, pulp, core, seeds, stem and blossom-end.

The peel is on the outside of the apple. It is red and translucent. It is very thin, tough, cold, light, flexible, and somewhat elastic. Its use is to cover and protect the pulp.

The pulp is between the peel and the core; it is one inch thick, and constitutes the main body of the apple. It is white, hard, and cold. It is juicy, pleasant to the taste, and fragrant. It is that part of the apple that is used for food.

The core, seeds, stem and blossom-end may be described in a similar way, and the description of the apple as a whole and as related parts, thus made complete.

While the child cannot, and need not, fully recognize the principles in accordance with which he thinks and writes, it by no means follows that he should not think and write in accordance with principles.

The teacher, on the other hand, should understand them thoroughly, and keep them continually in mind, in order to direct the child intelligently and properly. Even though the child should *never* fully understand the principles, the practical skill which he acquires, and the habits which he forms, will be of inestimable value to him. They will aid him in the preparation of his lessons; in short, in every department of thought and its expression.

But there comes a time in the progress of the child's development, when he is mature enough to grasp the principles. He will then see *why* he was led to do this and that, and *why* he was cautioned to avoid doing thus and so. He will then be self-directing, *i. e.*, he will know *when* and *why* his thinking and writing are correct or incorrect. He will be able to comprehend and appreciate the beauties in the writings of others, and to criticize and make fine discriminations in them.

On the contrary, if he has not been properly trained, his incorrect habits will have become so fixed that to rectify them will be a continual battle, and it will be very difficult, if even possible, to secure that ease and smoothness which would come naturally had he been properly trained.

Aside from this varied thought-culture, there is opportunity for discipline in another direction. For if the penmanship, the capitalization and the punctuation are bad; the orthography and sentence construction incorrect; or if the enunciation, the pronunciation, and the modulation of the voice be inadequate to the thoughts and emotions, the desired effect will be so far destroyed.

All these things, together with the neat business habits formed in the writing, folding, signing and dating papers, will be of incalculable value to the child.—REBA WOODARD, *in The Educationist.*

SOME THOUGHTS.

1. If you would have no drones in your school, talk at each recitation to the dullest in your class, and use all your ingenuity in endeavoring to make him comprehend. The others, then, will be sure to understand.

2. Make each excercise as attractive as possible. Think out your methods beforehand, and illustrate freely.

3. Cultivate self-control; never be led into confusion, and above all be in earnest.

4. Be cheerful and *smile* often. A teacher with a long face casts a gloom over everything, and eventually chills young minds and closes young hearts.

5. Use simple language when you explain lessons. Long words are thrown away in the school-room.

6. Thoroughly test each pupil on the lesson, and do not be afraid of repetition. Review *every day*, or much time will be lost.

7 Do not try to teach *too much;* better teach a little and teach it *well.*

8. Endeavor to make your pupils understand the *meaning* of what they study. Probe the matter to the bottom, and get at the real knowledge of your scholars.

9. Cultivate the understanding, and do not appeal directly to the memory.

10. Lay the foundation of knowledge firmly and well.

11. Impart right principles and lead your pupils to a higher level, to a nobler range of thought. Endeavor to accomplish all that skill, intelligence, and love can suggest.

What now you do you know not
But shall hereafter know,
When the seed which you are sowing
To a whitened field shall grow.

'Tis a rich young soil you're tilling,
Then scatter the good seed well;
Of the wealth of the golden harvest
Eternity will tell.

12. Teach your pupils to fight manfully in the warfare of good against evil, truth against error, and, above all, let the eternal principles of right and wrong govern your own life, and form a part of your own character. If you do this, you will "sow beside all waters, and eventually bring home your sheaves rejoicing."—*Maine Ed. Journal.*

THE MONTH.

WE have just received a neatly printed "Manual of the Common Schools of the City of Wilkesbarre." It contains the boundaries of the different wards embraced in the district; a list of the members of the board of control, with its standing committees; a list of the teachers and their positions; rules relating to the board, the superintendent, teachers, and pupils; a well-planned course of study for all the schools, and a programme of daily exercises. Although nothing is said to that effect, we think we see plainly enough in much of the work the hand of the efficient Superintendent of the schools of the city, Rev. C. J. Collins.

A SPECIAL institute for the teachers of graded schools was held at Catasauqua, Lehigh county, on the 25th of October, under the direction of the County Superintendent, Mr. J. O. Knauss. This is a new movement, but a very proper one. There are matters connected with graded schools that do not much concern those that are ungraded. Special institutes may therefore be called to consider them. We expect the example of Lehigh in holding this institute to be imitated elsewhere.

A CORRESPONDENT of the Columbia *Spy* thus compliments the High School of Marietta, Lancaster county, and its Principal, Professor Geist:

The High School building here is a model. It looks more like a parlor than a school-room. The steel engravings, woodcuts charts. mottoes, and pictures on the walls are all neat, instructive, and appropriate; and they are made doubly attractive by the carpeted floor and well-kept room They have an organ, and everything in the room seems to confirm your first impression that it is furnished so as to combine utility and beauty. Professor Geist has been given an assistant teacher. He deserves great credit for building up the school, and improving the room without any cost to the School Board, and they have shown their appreciation of his services by giving him an assistant the moment he suggested it.

CENTRE COUNTY.—The Re-union of the county Normal School of Centre county took place in the Lutheran church at Centre Hall, on Tuesday evening. September 9th. The exercises, which consisted of orations and essays by the students, interspersed with excellent music, were very interesting, and were witnessed by a large concourse of citizens. A local paper adds—

"The music consisted of choruses, solos, and quartettes. Mrs. Magee presided at the organ and added to the exercises by several fine songs, which her rich and cultivated voice rendered so charming. The Reunion address was delivered by Wm. C. Heinle, a self-made young man, who has worked his way to the front rank of teachers. His address was an able one and well delivered With these highly successful Re-union exercises closed the term of the Normal for 1873. The attendance was large, and comprised the flower of the teachers of this county, male and female, and was one of the most successful of Supt. Magee's sessions of the Institute. We cheerfully testify to the good conduct of each and every one of the students during their stay here—their bearing was that becoming ladies and gentlemen who are to be entrusted with the education of our children. Success to all of them. Resolutions of thanks to Profs. Magee and Rishel, and to the people of Centre Hall, were adopted."

PROGRESS AMONG OUR COLLEGES.

IT gives us great pleasure to note the evidences of progress that present themselves, from time to time, in connection with the several collegiate institutions of the state. Efforts in behalf of education need strengthening nowhere so much as in this direction. Our greatest educational, if not political, danger is superficiality. We sadly need men of more weight in all departments of business. Shallowness, and that conceit and want of self-respect which are so apt to be its concomitants, is degrading the professions and lowering the character, if not tending to corrupt the morals, of our legislative assemblies. Success, then, to all movements calculated to promote the growth or advance the interests of our colleges.

A GRAND DAY AT LAFAYETTE.

"Yesterday," says the Easton *Daily Free Press* of October 22d, "will long be remembered in the history of Easton. The ceremonies formally dedicating Pardee Hall were of an interesting character, and the demonstrations of our citizens in honor of the event were more marked than we remember to have witnessed on any like occasion. The day was celebrated in a manner honorable alike to the college and the town. The presence of a large number of visitors and distinguished men and scholars was a marked feature of the day; but more than anything else, the grand procession of the citizens of Easton, the most splendid display that has been witnessed for years, was worthy of notice. The day marked a new era in the history of the college. Hereafter she wields an influence and has a prosperity which were not before hers."

The exercises of the day commenced at eleven o'clock, when a procession composed of the faculty, trustees, Governor and other State officials, alumni, students, clergy and invited guests, moved from the college chapel to the auditorium of Pardee Hall and took the seats assigned them. The hall was filled to overflowing by an audience among whom were hundreds of persons distinguished as scholars, or by the honored positions they hold in church or in state. Mr. A. Pardee, to whose well-advised liberality the college is indebted for the hall, occupied a modest seat in the rear of the platform. The orator of the occasion was Prof. R. W. Raymond, lecturer on mining geology in the college, and President of the American Institute of Mining Engineers. The address was an able vindication of scientific and technical education, the kind of instruction to which Pardee Hall is to be devoted.

At the conclusion of Prof. Raymond's address, a general invitation was given to partake of a collation which had been prepared in the laboratories on the fourth and fifth stories. Here long lines of tables groaned beneath the good things that had been placed upon them, and the room was beautifully adorned with wreathes and bouquets. From taking a hand in this part of the exercises, no one excused himself.

The streets of Easton had presented a busy spectacle all morning. Hundreds of visitors had come on the different trains. Bands of music paraded the streets. The hurry of preparation showed itself in all directions. "In the afternoon," says the *Free Press*, "business was entirely suspended. Every store was closed, the noise of the factory had ceased, quiet brooded over the work-shop. The merchant had left his counter, the mechanic had doffed his apron, the lawyer had thrown aside his brief, and all united to honor the day. There has not been an occasion for years in which our citizens have joined with such universal interest." And we may add that this and the procession of citizens which followed were to us the most interesting and significant part of the ceremonies.

Early in the afternoon the procession was formed at Centre Square. It was composed of all the principal civic societies of the place, officers of Easton and neighboring boroughs, High School pupils, Fire Department, and a large number of citizens on foot and in carriages. After marching through the principal streets of the town, the procession approached the college, and was met at one of the gates of the grounds by the faculty, trustees and students of the college, and conducted by them to the front of the new hall, where further ceremonies were to take place. The principal feature of these was the transfer of the hall by Mr. Pardee to Dr. Cattell, the President of the college. The Philadelphia *Press* describes this and the subsequent exercises as follows:

Mr. Pardee modestly handed the keys to President Cattell, with the following remarks:

"The completion of this building makes it my very pleasant duty, on behalf of the Building Committee, and myself as the donor, to formally present it to you, as the representative of the trustees and faculty of Lafayette. The building itself speaks of the skill and taste of the architect, the faithfulness of the builder and the care with which it has been supervised during its erection. Our responsibilities have not been small; but on you, sir, and on the students who shall go out, year by year, from these halls, rests a far larger responsibility—the reputation of the institution. But looking to the future by the light of the past, we rest the responsibility on you with no misgiving. I have the honor, sir, of now presenting you with the keys of the hall."

President Cattell responded briefly, and said that in receiving from Mr. Pardee the keys of the building which he had so munificently endowed, he could find no words adequate to express his own thanks or the thanks of his colleagues in the faculty, for the grand addition to their means of attractive and thorough teaching, and for their own scientific researches or the thanks of the trustees or patrons and friends of the college alike interested in her welfare, or the thanks of all friends of education who see in such a large and unselfish use of wealth for the benefit of mankind the noblest use to which it can be applied. Turning to Mr. Pardee, he said: "And I know you, sir, so well that I am sure the less I say to you on an occasion so public the better you will be pleased. I shall, therefore, only assure you that our hearts are full of gratitude for your munificent gift and for your wise and generous counsel."

After these simple exercises were concluded the whole assemblage united in singing the doxology, and prayer was offered by the venerable Dr. Coleman, for many years professor of Latin in this college.

Brief speeches followed from some of the distinguished persons present. Ex-Governor Pollock introduced Governor Hartranft, who was greeted with cheers. He said this was a proud day for Easton and Pennsylvania. From what he knew of President Cattell he was satisfied that the gift of Mr. Pardee had fallen into good hands.

Remarks were made by E. H. Green, president of the Borough Council; Major C. B. Howell Chief Burgess of Easton, and E. F. Stewart, president of the Board of Control of Easton. The exercises closed with a short speech by Ex-Gov. Pollock. The procession then returned to the town.

Immediately after the departure of the civic procession, President Cattell, with the faculty and their guests returned to the auditorium, which was even more crowded than in the morning. It was even with difficulty that some of the speakers could approach the platform. The exercises were conducted by the Rev. Dr. Cattell, and addresses were made by Dr. J. P. Wickersham; Hon. B. G. Northrop, secretary of the Connecticut Board of Education; Rev. Dr. Robert Knox, of Belfast, delegate to the recent Evangelical Conference; Rev. Dr. John Harris Jones, of South Wales; Hon. Hiester Clymer, Rev. Thomas H. Robinson and Dr. A. J Weikol, secretary of the Meteorological Committee of the Imperial Geographical Society of Russia. The long-metre doxology was sung, and with the benediction by Rev. Dr. Hunt the exercises closed. In the evening there was a torchlight procession of the Easton fire department; the college buildings were brilliantly illuminated, and a grand reception of the citizens of Easton was held in Pardee Hall.

Our space is too limited to give a description of Pardee Hall, but we must say that it is a noble structure. It occupies a commanding position on the hill near the college, is 250 feet in length, and rises five stories in height, surmounted with turrets. Everything about it is solid and rich, but without any superfluous ornamentation. It is doubtful whether there is another building of the kind in the whole country so well adapted to its purpose. The cost of the building and its furniture was about $250,000.

CORNER STONE LAID AT WASHINGTON AND JEFFERSON.

On the same day on which the ceremonies above described at Lafayette took place in the Eastern part of the State there was rejoicing in the West, at the laying of the corner-stone of the new building for Washington and Jefferson College at Washington, Pennsylvania.

Falling rain intermixed with snow prevented the intended procession, but at the time appointed a large number of citizens and friends of the college from abroad assembled in the town hall to hear the addresses to be delivered on the occasion. Among the speakers were Rev. Mr. Wilson, of the Theological Seminary; Hon. Cyrus L. Pershing, John H. Hampton, Esq., and Rev. Alexander Sweeney. A correspondent of the Philadelphia *Press* makes the following extracts from Mr. Hampton's address, which seems to have been a very able and timely production:

The object sought to be attained is a noble one, nothing less than the establishment of a seat of learning to be equal to any in the land, whose chairs shall be filled by ripe scholars to teach in every department of science, and impart instruction in the languages and polite literature. And why should not Pennsylvania, an empire in herself, with three and a half millions of population, growing up grandly under the sheltering ægis of republican government, have within her borders a great college to rival Yale and Harvard? If the most illustrious schools of medicine on the continent are to be found in Philadelphia, we should resolve that on the confines of Western Pennsylvania an institution for the instruction and advancement of our young men in the pathway of knowledge shall here on this spot arise, to challenge the admiration and win the support of the public. Let the wealthy of our land, who desire to benefit the State and nation, and leave behind something to perpetuate their names, as benefactors of their kind, give of their abundance to endow professorships in this college, to enlarge its library, and add to its means of doing good. Better such praiseworthy generosity than to allow spendthrift sons to scatter it to the winds, regardless of the anxious years of labor requisite for its accumulation, or left as food for contention among thankless heirs. A magnificent structure, costing over two hundred thousand dollars, erected for the scientific department of Lafayette College, at Easton, in this State, is being dedicated to-day with imposing ceremonies, the princely gift of Mr. A. Pardee. Let him be publicly honored for the noble act. Such a man will live in the grateful recollection of the people long after he has passed away. Who, of the greatly prospered in our midst, will follow his example in building up our college?

He referred to the necessities of a collegiate education, and

then said: "The reputation of this glorious old Commonwealth of ours among her sister States: her rank in the national councils; her position in the world of commerce and letters, all depend upon the generation of young men soon to come upon the stage. How encouraging the prospect before them; how wide the field for manly effort and glorious success, if to their high mental culture moral worth be joined? No country offers them such tempting inducements to labor for distinction as ours Possessed of a thorough education and determined to follow the path of rectitude, young men can enter life confident of success. Stocks may fall, money may be withdrawn from its ordinary avenues, and a panic sweep over the land with the fury of a tornado, tearing up the foundations of business but they will have no loss for their treasures of knowledge will be safe and their investments beyond the fluctuation of any market."

The same correspondent remarks that—

The ceremonies at the laying of the corner-stone were very simple but performed in a feeling manner. The president of the college, George P. Hays, LL.D., placed a box containing copies of the newspapers of the town, documents relating to the college, etc. into its receptacle. The list of contents embraced blanks and forms in all branches of business, catalogues, circulars charters, etc, and is peculiar The president called upon ex-Governor Peirpont, of West Virginia to lay the corner-stone The address was short. The great corner-stone, he said, was, faith, knowledge courage. With three strokes of the mason's hammer, the Governor announced the work done. "in the hope that Providence would preside over the destinies of the institution." Rev. W. A Davidson then offered up a feeling and very appropriate prayer, after which the audience adjourned promptly to the dining hall of the old college. There the ladies of the town had provided an elegant and abundant repast.

The new building is to stand immediately in front of the old structure, and will present an imposing appearance. The frontage of the building will be 145 feet, and it will extend back 100 feet. It is to be of the composite style of architecture, four stories in height, with mansard roof. There will be one commodious entrance, three large doors, and over the main entrance there will be a balcony. In the plan provision has been made for recitation rooms, halls for the societies, and rooms for apparatus, laboratory, museum and library. The contract price of the building, without furniture, is $65 000. A por- of it is to be ready for occupancy in the fall of 1874.

GROWTH AT BEAVER COLLEGE.

There was erected during the past year at Beaver, Pennsylvania, a new building for Beaver College and Musical Institute. This institution, we believe, is mainly intended for young ladies, but a limited number of young men are also admitted. The following description of the new building just opened and the college, is from a late number of the *Christian Advocate*:

A mere outline of its proportions and excellencies, is all tha is possible now to give some idea of its superior claims for imparting an education equal to other institutions before the public. The structure stands upon the elevated plateau, or level, stretching along the entire rear part of the staid and high-toned town of Beaver, in a grove comprising five acres affording ample room for physical exercise over its extensive walks, grassy lawns, etc. A portion of the building is five stories high. The style of architecture is a happy combination of the English, Norman and Italian. The full frontage is 180 and depth 75 feet The form of the pilasters of the the brick work of the front, is tasteful and imposing. The cost of the buildings and grounds is estimated at seventy-five thousand dollars. The elegant new fence, in course of erection shows the whole to admirable effect. Entering the dining-hall, eigh y feet long, upon the basement floor, the appointments are of the most modern kind, for serving and preparing the table comforts. Attached to this department, provision is also made for heating the entire building, with washing facilities, and for furnishing hot and cold water to the boarders' rooms. Rooms for the recitation of classes are so arranged as to give method to the different departments of instruction, with furniture and other equipments of the most modern and approved kind These rooms are large, well-lighted, and well-ventilated. Provision is also made for congregating all the pupils for general rehearsal, independent of the beautiful hall for public performances. Capacious rooms are provided and in practical use for the Cabinet of Minerals, etc., Library, Art and College Society. All separate, roomy and well appointed. The main hall, for public performances, is a gem and will accommodate five hundred persons. The elegant stained glass-windows, show to fine effect the "memorial" tokens of departed worth. The rooms occupied by the boarding pupils are neat roomy, nicely furnished, and well heated in cold weather, and so arranged as to give a cheerful appearance and healthy glow. In a word, the buildings and furniture indicate, that no expense has been spared to make the college first-class in all its equipments. A comfortable building has also been provided on the grounds of the President for the male students, who are immediately under his personal supervision.

The Board of Trustees have been managing their trust well, and have authorized President Taylor and the officers of the Board to devise liberal things. Justice Agnew, of the Supreme Court, President of the Board, has long been a devoted friend of the College, and the Vice President, Rev. John F. Dravo, has given considerable supervision to the late improvements, and also gave *Ten Thousand Dollars* towards the new buildings just erected. Secretary Weyand and Treasurer McCreery, also deserve honorable mention Hon. M. S. Quay, Secretary of the Commonwealth, and resident of Beaver, has been elected a trustee to fill a vacancy.

With the opening of the new College year, the Faculty has been enlarged and embraces fourteen persons. President Taylor, in connection with the exacting duties of the general direction of the College is Professor of Moral Philosophy and Greek. Prof. Johannessen recent y placed in charge of the Musical Department is a Norwegian by birth and has resided twelve years in France. He is an accomplished and skillful musician His wife, a native of France, will teach French. Prof. Geo. W. Loomis, teacher of Latin, is a fine scholar, the son of President Loomis of Allegheny College Miss Magee, the Preceptress, teacher of Mental Science and German, has adorned her position for six years Mrs. Dr. Taylor, in charge of Voice Culture and Vocal Music is possessed of rare culture as a teacher and is a superb singer. Two assistants are employed in the musical department, and fourteen pianos, including one grand Chickering, and a superior pipe organ, are also in use. Among the new teachers we name Mrs. Hurlburt, teacher of painting and drawing, a superior artist and for some time a resident of Philadelphia. We note with pleasure in this connection, that Mrs Thomas, the wife of the late lamented Rev. A. H. Thomas, is the Matron, a position she will well adorn.

The college year opens auspiciously, the attendance being much larger than ever before, with prospects of many more students Parents and guardians who intend to send their children or wards, will do well to have them enter classes at once.

YORK COLLEGIATE INSTITUTE.

Some two years ago, Samuel Small, of York, commenced the erection of a building in that borough to be used for school purposes. The building is well-located, very commodious, and finished in a substantial manner. The whole expense of grounds, building and furniture, has been borne by Mr. Small, and it is his well-understood purpose to provide an ample endowment for it. Nor is this the only evidence of the liberality of its generous founder. Within sight of it, stands the beautiful building belonging to the Home of the Friendless, with its hundred or more "little wanderers," orphaned, homeless children—this, too, has its story to tell of the big, true heart of Mr Small. Let his name be honored with those of Packer and Pardee.

On Monday, November 3, the York Collegiate Institute was dedicated. The day was beautiful, and the ceremonies attracted a large crowd of intelligent people. Many clergymen and other prominent gentlemen from abroad were present on the platform. After music and prayer, Rev. H. E. Niles, pastor of the Presbyterian church in York, delivered the opening address. From this address we make the following extract, explaining the history and design of the enterprise:

A native of this borough, nearly the whole of whose life has been spent here, whose family and business relations are mainly here, and who has always taken pleasure in contributing by every appropriate means, for the advancement and elevation of society, has long been considering the desirableness of increasing facilities for enlarged Christian education. Several years since on a visit to New England he became acquainted with some of the Founders, Trustees and Instructors of a popular institution designed for a similar purpose. With them he visited the school which they had taken so much pains in estab-

lishing—marked the fine proportions, excellent finish and complete arrangements of their edifice and saw something of the drill and order of their school exercises From that time his desires began to take more definite shape and his purpose, with God's blessing, to endow a first-class institution was confirmed. Plans were obtained, and arrangements commenced for the erection, on this most eligible lot, of a suitable structure.

Sometime subsequently, a most excellent movement was set on foot for the improvement of our public schools and the establishment in our borough of a High School, with an enlarged curriculum of studies. This advance, we know, was, by some, regarded as sufficient to meet all the wants of the community. But, to others, it seemed that there was abundant room for both the new institutions, and that, so far from any collision of interests, they might rather be expected mutually to benefit and sustain each other. With this conviction, he, who as a taxpayer was one of the largest supporters of the public school movement, nevertheless, determined to go steadily forward for the accomplishment of his original plan. In a paper, drawn up about that time, to indicate their purposes and desires with reference to the subject he and his wife say: "That, deeply impressed with the importance of increasing popular facilities for intellectual and moral culture, and especially solicitous for the Christian education of the youth, in this region where Providence has cast their lot, they have determined to make an humble dedication of some of the means wherewith their Heavenly Benefactor has blessed them. They desire to lay the foundation of an enterprise for affording instruction, not only in the ordinary branches of literature and science, but also, and especially in regard to the great end and business of life. Earnestly hoping that the institution so commenced, may grow and flourish, that the advantages of it may be extensive and lasting, that it may be cared for and further endowed by sympathising friends, and that it may prove an eminent means of advancing the interests of the Redeemer's kingdom, to His patronage and blessing, they commit it!"

Mr. Small, in response to Mr. Niles, gave some touching allusions to his early history, and then addressed in turn the pupils of the school, the trustees, and the Presbytery of Westminster, to whose supervision the Institute was committed. In conclusion, he handed the deed of transfer signed by himself and Mrs. Small, to Mr, Niles, as secretary of the board of trustees.

After being formally inducted into office, the President of the Institute, Rev. Mr. McDougall, delivered an able address, explanatory of his views of education, and the objects of the Institute. Prof. Samuel B. Heiges followed in some appropriate extemporaneous remarks.

The exercises were continued in the evening, when letters were read from those invited who could not be present, and short addresses were delivered by a large number of gentlemen, interspersed with music, conducted by Prof. Peter Bentz.

Western Pennsylvania.

BY REV. M. B. SLOAN.

DURING the last month we attended three teachers' institutes, which were held at the following places: Pittsburgh; Riceville, Crawford county; and Oil City, Venango county.

The Pittsburgh Quarterly Institute held its Friday evening session October 17th, in the Washington school-house, T. J. Duncan principal. There was a good attendance of teachers and many citizens were also present; so many, indeed, that all could not gain admittance to the hall Mr. Jas. Prestley lectured on General Education, dividing his subject into three heads: How shall we teach? What shall we teach? and Who shall teach? He took strong grounds in favor of paying equal wages to men and women for like services, in all the avocations of life. At the conclusion of the lecture the question, "Is Legislative enactment compelling attendance at school desirable?" was discussed by Messrs. H. O. Gibbon and J. L. Harrison in the affirmative, and Messrs. Wm. R. Ford and T. Jeff. Duncan in the negative.

The Saturday forenoon session was held in the Ralston School hall, Andrew Burtt principal. The exercises were an essay on Our Girls, by Miss Mattie J. Coleman; and a black-board lesson on Teaching Natural Philosophy, by Mr Burtt. This lesson gave rise to an interesting discussion. City Superintendent Geo. J. Luckey delivered an annual address, in which he reviewed the workings of the schools of the city during the past year.

The Crawford county institute was held at Riceville, beginning October 20th, and organized as follows: Supt. J. C. Graham, president; M. B. Sloan, vice-president; A. J. Maxwell, secretary; and Mr. E. P. Greene and Miss E. McEntire, assistant secretaries. The instructors were Dept. Supt Robert Curry, Prof. G. A. Langley, of Edinboro Normal School; Miss Rose A. McCleary, of Pittsburgh; and Supt. H. S Jones, of Erie. Evening lectures were delivered by Prof. G. A. Langley, Rev J. D. Herr, of Oil City, and Dr. Loomis, President of Allegheny College, Meadville. Essays were read by Messrs. A Wheeler, J. W. Walker, Horace Mann, P. F. Hallock, O. J. Gunning and Miss Henrietta Stratton. Mr. Wheeler's essay on Primary Instruction, or rather "school discipline," in which he maintained his long-continued opposition to the use of the rod in the school, elicited an exciting and interesting discussion, and when a motion was finally made to the effect that corporal punishment in school should be abolished, the vote stood 40 to 53.

Thursday afternoon was taken up by the directors' meeting, in which the following questions were discussed: "Should the school term be a continuous one?" and "Should the custom of 'boarding 'round,' on the part of teachers be abolished?" The first-named question was lost, but the latter was carried unanimously. A contest in spelling, conducted by H. S. Jones, in which sixty words were required to be written, created considerable interest, as nearly all the teachers present entered into it. Mr. E. P. Greene, of Blooming Valley, was declared the champion speller.

The Venango county institute was held at South Oil City commencing October 27th, with the following officers: Supt. W. J. McClure, president; J. J. Kincaide, of Oil City, vice-president; Geo P. Lord, secretary, and Miss Adelaide Graybill, assistant secretary. The instructors were Dept. Supt. Robert Curry, Andrew Burtt, W. W. Woodruff and Miss Rose A McCleary. Lectures were delivered by Rev. J. D. Herr, of Oil City; Andrew Burtt, of Pittsburgh; and Rev. M. McAlister, of New York. Miss McCleary and Mr. Kinney gave an evening's entertainment in reading, which was well received.

Here, also, as at the Crawford county institute, the subject of "corporal punishment in school" received its full share of attention. No formal vote was taken on the question, but the general opinion of speakers and teachers evidently was in favor of retaining the *authority* to resort to that mode of punishment when absolutely necessary. The strongest advocate of the moral suasion policy admitted that it would be better to resort to it than to expel a pupil. Mr. McClure announced that owing to the good results attending the Normal School held in Oil City during the summer under his supervision—assisted by Andrew Burtt, S. D. Owen and others—a similar one would be held

next summer somewhere in the county. He also stated that Mr. Burtt and Miss McCleary had consented to come again and teach in this school.

Mr. G. A. Walker succeeded Mr. C C. Dunnells as principal of the Franklin schools, Venango county. Mr. J. R. Speigel, who taught at the Titusville soldiers' orphan school, has been elected principal of the Wilcox schools, Elk county. Mr. J. W. Walker, formerly of Wheatland, Mercer county, succeeds Mr. W. H. Armstrong, deceased, at Conneautville, Crawford county. Mr. W. C. Lyne remains in charge of the schools at Washington, Washington county. Mr. G. W. Kratz, formerly of Allegheny city, is now principal of the Kittanning schools, Armstrong county.

Supt. John Davis, of Allegheny city, has entered upon the duties pertaining to his office, and has about completed a "time grade" for the schools of the city, which contemplates a course of seven years, each year to be in three divisions, as A, B and C. Next month we will present a full account of this "time grade," and its proposed workings. The city authorities have fitted up an office for Mr. Davis in the third story of the building, corner of Federal street and Stockton avenue, but it is supposed that he will be allowed office room in the new City Hall, when completed.

OBITUARY.

JONAS N. KLINGENSMITH.

AT a meeting of the teachers of Allegheny township Armstrong county, the following resolutions were adopted:

WHEREAS It has pleased Almighty God, to remove our highly esteemed friend and co-worker, Jonas N. Klingensmith, from amongst us. Therefore,

Resolved, That we bow in humble submission to the will of Him who doeth all things well, and while we mourn his early departure, we will profit by his example, that when our time comes to be called home, we may be able to say with him, "It is well"

Resolved, That in his death, the cause of education has lost a warm friend, teachers an earnest co-worker and Allegheny township a faithful teacher, who by his amiable disposition, and untiring energies, had won the esteem and confidence of all who knew him Although we shall miss him in our educational meetings, and social gatherings, yet his memory will ever be kept green in the garden of our hearts.

Resolved, That we tender our sincere and heartfelt sympathies to the bereaved family, in this their sore affliction; and may He, who quieted the troubled waters, send peace and consolation to their sorrowing hearts.

Resolved, That these resolutions be published in the county papers and SCHOOL JOURNAL, and a copy sent to the parents of the deceased.

BELLA PARKS,
MATTIE CROSBY,
Committee.

GEORGE M. YOCUM, ESQ.

GEORGE M. YOCUM, President of the Bellefonte School Board, was a short time since accidentally shot by the discharge of his gun while out on a hunting expedition. He died within a few hours of the time of the accident. Mr. Yocum was a good lawyer and a public-spirited citizen. His sudden death was universally lamented. The following are the resolutions passed by the Board of which he was a member:

WHEREAS, It has pleased Almighty God to remove from our midst by death most sudden and terrible, our friend and colleague, George M. Yocum,

Resolved, 1*st*, That, as Board of School Directors of Bellefonte Borough, we most sincerely deplore his loss. As President of the Board he was most courteous and affable, and as a director most energetic and effective, and we believe that the present prosperous condition of our public schools is largely due to his personal and persistent efforts.

2*d*. That as friends and associates of the deceased who in mingling with him in the varied in walks of life, have learned to respect and esteem him, we desire to express our unfeigned sorrow at his death, and to bear testimony alike to his high character, his urbanity, his frank and generous nature, and his unimpeachable integrity.

3*d* That that these resolutions be published in the SCHOOL JOURNAL, and the several newspapers of this county and a copy be sent to the relatives of the deceased.

GEO. F. HARRIS,
JNO. P. HARRIS,
C. T. GABERICH,
Committee.

OFFICIAL DEPARTMENT.

DEPARTMENT OF COMMON SCHOOLS,
HARRISBURG, December, 1873.

DR. D. W. C. HUNTINGTON, having removed from the state, has resigned his position as Trustee on the part of the state in the board of trustees of the State Normal School of the Fifth District, at Mansfield, Pa. No successor has been appointed.

LETTER OF THANKS.

Hon. Fuzimaro Tanaka, Minister of Public Education in Japan, who visited Harrisburg some two years ago for the purpose of obtaining information in relation to our system of common schools, has sent to the State Superintendent the following letter of thanks:

DEPARTMENT OF EDUCATION,
TOKEI, JAPAN, Sept. 8, 2533.

SIR: I have the honor herewith to express my warmest hanks for your kind attention and careful information to my inquiries during my sojourn in your country in the last year as a Commissioner of Public Education from His Majesty the Emperor of Japan, and also to inform you that after my return from abroad I am conducting general educational affairs of the Empire, as usual. With the best wishes for your welfare and prosperity,

Very respectfully, your obedient servant,
FUZIMARO TANAKA,
Acting Minister of Public Education.

J. P. WICKERSHAM, Esq., Supt. Schools,
Harrisburg, Pa., U. S. A.

WORK IN THE FIELD.

During the month beginning the thirteenth of October and ending the thirteenth of November, Deputy Supt. Curry attended seven institutes, held in the counties of Tioga, Potter, Crawford, Venango, Cumberland, Delaware and Dauphin, respectively. In attending these institutes Prof. Curry traveled 2,681 miles and gave fifty-six institute exercises, embracing evening lectures, class drills and other lessons of instruction. He now has engagements for all his time

till the close of the week ending the 24th of January, 1874. Parties wishing his aid after that date should address him at Pittsburgh, Pa.

AT CANNONSBURG.—The list of institutes announced last month named Washington as the place at which that of Washington county will be held. This announcement was premature, and Cannonsburg has been decided upon as the place at which the institute will convene this year. The best instructors have been engaged and Supt. Fee means that good work shall be done during the sessions.

DOCUMENTS FOR SUPERINTENDENTS.

Boxes containing Teachers' Monthly Report Books and Digests of School Laws have been forwarded to all the superintendents in quantities as large as the supply on hand would warrant. The burning of the State Printer's office greatly diminished the number of copies for distribution. The counties for which boxes were made up and forwarded before the fire fared necessarily, considerably better than those lower down on the list. The superintendents who have not done so, should at once acknowledge the receipt of the boxes.

COUNTY INSTITUTES.

Perry	Bloomfield	Dec.	1
Northampton	Bethlehem	"	1
Franklin	Chambersburg	"	1
Forest	Tionesta	"	1
Cameron	Emporium	"	2
Huntingdon	Huntingdon	"	8
Northumberland	Shamokin	"	15
Montour	Danville	"	15
Lycoming	Montoursville	"	15
Fulton	McConnellsburg	"	15
Luzerne	West Pittston	"	17
Jefferson	Brookville	"	22
Wyoming	Tunkhannock	"	22
Fayette	Uniontown	"	22
Greene	Waynesburg	"	22
Centre	Bellefonte	"	22
Clearfield	Clearfield	"	22
Washington	Canonsburg	"	22
Westmoreland	Greensburg	"	22
Clinton	Lock Haven	"	29
Snyder	Selinsgrove	"	29
Schuylkill	Pottsville	"	29
Armstrong	Kittanning	"	29
Beaver	Beaver	"	29
Indiana	Indiana	"	29
Blair	Hollidaysburg	"	29
Columbia	Orangeville	"	29
Perry	Bloomfield	Jan. 5,	1874
Altoona	Altoona	" 5,	"
Clarion	Clarion	" 12,	"
Erie	Girard	" 19,	"

$1,000,000.

The proposed State Constitution provides that the Legislature shall appropriate annually at least $1,000,000 for the support of public schools. This appropriation seems large, but its effect is to *diminish* local taxation not to *increase* it. The cost of our schools is now in round numbers $9,000,000; if the state pays $1,000,000 the people have to pay $8,000,000; if the state pays less, the people have to pay more. The $1,000 000 is therefore money put into the people's pockets, not taken from them. This would not be true if the state obtained its money by general taxation, but it does not. It obtains it in great part from taxes on corporations imposed as a proper return for the valuable franchises which have been granted them.

THE FIRE.

The splendid office of the State Printer, Mr. Benjamin Singerly, was destroyed by fire on Wednesday, the 5th of November. The fire broke out about 11 o'clock, A. M., but so rapid was the spread of the flames that no part of the contents was saved. The loss on building and contents is estimated at $250,000.

Besides minor matters, the loss suffered by this Department is about as follows:

6,000 copies of the new Digest of School Laws.

8,000 copies of the new Teachers' Monthly Report Book.

6,000 copies of the report of the Superintendent of Soldiers' Orphan Schools, for 1873, just completed.

25,000 copies of the report of the Superintendent of Common Schools, for 1873, four-fifths printed.

Fortunately, the manuscript of both reports is in good part preserved; but it is quite uncertain when they can be reprinted, if ever. Superintendents who have not published their reports in the county papers, should now do so without further delay.

ITEMS FROM LATE REPORTS.

ADAMS.—The schools are generally in operation. There was a great scarcity of competent teachers in the county.

BERKS.—Our county institute was a grand success. The attendance was not quite as large as formerly, because the teachers of the city of Reading were not present, but that on the part of teachers from the county was larger than any time heretofore. The directors' meeting was well attended for the first one in the county. They will hereafter form a more interesting part of our institute.

HUNTINGDON.—Owing to the scarcity of teachers some of our schools are not yet supplied. A week was spent in visiting the schools of Huntingdon boro'. A new building in West Huntingdon is in process of erection and will be finished by December 1st, when a re-grading will take place and the primary schools, now very much crowded, will be relieved of some of their pupils.

FRANKLIN.—I am glad to report improvement in our schools.

JEFFERSON.—A number of good school houses have been erected during the summer, to take the place of old ones, unfit for use. Directors take too little interest in visiting schools.

JUNIATA.—Local institutes will be held in different parts of the county during the winter. They will be convened on Friday evenings, and continue during the day and evening of the following Saturday.

LEHIGH.—Our schools are nearly all in session. A number of new school houses were erected during the summer vacation, and a number of others remodeled. Nearly all the new houses, and some of

the old ones, have been furnished with patent desks.

MCKEAN.—Institute was held at Smethport the third week in September. Members enrolled, 57. Instructors and lecturers, Profs. R. Curry, W. N. Hull; Co. Supt. Curtis also acting as instructor a portion of the time. Instruction was given in all the common branches, including U. S history, penmanship, the theory of teaching, physical geography, and elocution. The exercises were closed by a competitive reading by a number of teachers, and the presentation of a diploma to the successful reader.

PERRY.—The schools are nearly all in operation. The school work is in a prosperous condition.

PIKE.—The new building at Franklin in Dingman, is completed, and reflects much credit upon the school directors of the district. The material, workmanship and plan are unexceptionable.

SNYDER.—Nearly all the schools are in operation. In three districts the teachers' salaries are graded according to their certificates. Upon the whole, the teachers this year are better qualified than they were last. The directors also seem to take a greater interest in the schools than heretofore.

UNION.—The salaries of teachers have been increased in a number of districts. The directors in several instances have had considerable difficulty in finding good teachers, which is owing to the small salaries paid.

LINCOLN UNIVERSITY.

REPORT OF PRESIDENT RENDALL.

THE following excellent report came into our hands too late to be printed, and *buried*, with the reports of the Principals of the State Normal Schools. Pleasure is taken in giving publicity to it here. It contains information with which a large class of our readers will be glad to be made acquainted. Lincoln University, it is almost unnecessary to say, is an institution for the education of young colored men. Large numbers of them prepare for teaching at the university. The Legislature makes appropriations to it on that ground, and on that ground, too, is based its claim to have its reports published with those of the other state schools devoted to the education of teachers:

REPORT.

HON. J. P. WICKERSHAM, *State Superintendent of Common Schools:*

Our work in this institution has included a normal feature from the beginning. The competent training of colored men to teach the common branches of education was prominently before the Board of Trustees at the organization of Ashmun Institute in 1856. From that time till the close of the late civil war there were many obstacles in the way of colored teachers; they were not employed in schools sustained by state funds; education did not open up to colored men the higher trades and more lucrative and honorary occupations and professions, and hence no encouraging motives were presented to colored communities to support private schools. A prominent and able principal of one of the best colored high schools in our state said to me, "We have not been able to retain in our school for the completion of the course of study the children most capable of receiving a higher education, because there have been no occupations open to them which remunerated or required the use of such knowledge and culture." Enfranchisement opened up to them all these advantages. Among these openings to usefulness, that of teaching must, as their own tastes and felt needs are evidenced by their efforts to satisfy them, be regarded as the most attractive and important. Colored teachers, able to conduct good schools, may now receive, in several states, from thirty to forty dollars per month in public schools; and positions in higher schools, where the salaries vary from four to eight hundred dollars, are within the reach of many.

In 1865, when the present faculty was organized, this part of our work received a great enlargement. All the students were expecting to teach, and the professors gave special attention in their instruction to this design. In 1870, the Board of Trustees directed that distinctive prominence should be given to the Normal instruction in the Preparatory Department. Normal instruction was thus made a permanent feature of our work, and the obligation was laid upon the faculty to cherish and develop it, not as tributary to the Collegiate Department, but as an end in itself, important and necessary. At the annual meeting of the Board of Trustees, in June, 1873, the continued interest of the Board in this subject was expressed in a resolution unanimously passed to bring up the instruction in the Normal Department to the standard of the Normal schools of the State of Pennsylvania.

Until the present year this instructio has not, with us, been altogether distinctive. We have, however, given regular instruction in the science and art of teaching in classes formed for this purpose, and the instruction in all the classes of the collegiate and preparatory departments has been conducted with the design of fitting our students for the duties of teaching. Our course has thus been modified to conform to the laws of the State on this subject; but we have not been able to employ sufficient teaching force, nor have we had the conveniences of recitation-rooms and apparatus of instruction completely to organize this part of our work upon the improved models supplied in the normal schools. With a kind interest in our whole work and as a special favor to our colored citizens, you have approved our arrangements as a compliance with the spirit of the law respecting normal schools, and have, year by year, in your official reports to the State Legislature, recommended us to recognition and aid in this character. If all the results of our work could be spread out before you, I am sure you would be convinced that this encouragement has been well bestowed, and that even more in the aggregate of results has been accomplished for the cause of education by the course pursued in this institution, than would have been secured by a more rigid exaction of conditions framed for and adapted to communities, that have long enjoyed the advantages of a well organized system of education.

The maps of illiteracy in the United States and of the distribution of our colored population demonstrate to the eye a connection between these distributions, which may be well understood from the history of our late domestic and civil convulsions. Even with reference to the wants of our own favored State, the necessity of fulness and exactness in the elementary course of normal training is acknowledged. You will readily admit the propriety and fairness of the claim, that in promoting the special objects aimed at in this institution, the requirements of scholarship should be modified by the present

wants and actual educational advancement of those for whose benefit we are laboring. It would be wrong to withhold the elements of instruction from the great mass of the colored children of our country under a rule to commission as teachers only those who had enjoyed the highest advantages of preparation. It is an object of special care in our operations to train our students thoroughly in spelling, writing, reading and English grammar; in arithmetic, geography and vocal music, and in the principles of Christian morality. Pains are also taken to instruct them in the best methods of communicating knowledge on all these subjects and in the general conduct and government of schools.

In addition to these subjects of study, which are appropriate to the normal department, the students in the collegiate department, who come within the scope of the State appropriation, are exercised in mathematics, natural science, language, and philosophy.

The course of study and methods of instruction in the department of mathematics are so arranged as to lay a foundation for those scientific pursuits which depend on mathematical processes for their prosecution, and to secure that degree and kind of mental culture which mathematics best supplies. Its processes call into constant exercise the powers of intuition and abstraction, and the rapidity of its operations, and the certainty of its conclusions, impart a habit of confidence to the mind.

The various subjects included in natural science are presented to the classes in succession. First in order comes physical geography. In this introduction to the natural sciences, an effort is made to interest the students in the structure of the earth as the abode of man. To this succeeds natural philosophy, in which the principle of mechanics, of solids, and of hydrostatics are unfolded in their application to the industries of man. Then follows the applications of chemistry and physics to the arts of civilization. An effort is made to lay a good foundation in exact knowledge of the nomenclature and principles involved, so that the student may easily fit himself for any special department of industry. The last year is given to geology, mineralogy and astronomy.—These subjects are appropriate to the closing year of the course, as connected with some of the most difficult questions in scientific investigation, and as peculiarly fitted to combine the knowledge previously acquired in the desired solutions.

The course of instruction in the English language includes the practice of impromptu and premeditated composition, submitted to the criticism of the students in the several classes, and more formally corrected by the professor of rhetoric; the composition of essays by the students on assigned or selected subjects; and the composition and delivery of orations before the classes, the body of the students, and, on special occasions, before invited guests. It comprehends, also, a course in formal rhetoric, and in English and general literature. The design of the course is to correct the common faults of manner and of tone; to secure simplicity and naturalness in composition and delivery; and, by frequent exercise, to qualify the students readily and forcibly to express their own thoughts, and thus exert a legitimate influence in forming and moulding the opinions of others.

In the department of the Greek and Latin languages, an effort is made, in the later years, to rise above the details of construction to the criticism of the thought and style of the authors read, and to secure to the student, by the drill of the recitation-room, the advantages of exactness and precision in his own thinking, and of reading and propriety of expression. Attention is given in the choice of text books to the selection of subjects still included in the course of liberal education. The student is thus benefited, not only in a general way by the process and the work of study, but his mind is enriched by a knowledge of the thoughts and judgments of the profoundest thinkers of the past, and his interest in these languages is sustained by the advantage of constant suggestion and aid in the formation of his own opinions upon topics of perpetual interest to man.

The aim of the instruction in the department of philosophy is to acquaint the student with the operations of his own mind; the nature and certainty of the knowledge which he desires, both from perception and consciousness; the bearing of the problems which present themselves in this field of inquiry, and to fortify him against the insidious influence of false philosophy.

In all these subjects the instruction is given by lectures, recitations, and oral and written examinations; and in them all the professors and instructors bear emphatic testimony to the attention, diligence and success of the students. They show the same variety of tastes and special aptitudes, and often eminent abilities and genius in particular branches of science, mathematics or philosophy, as are customary in other similar institutions.

The business of Lincoln University is managed by the Board of Trustees, which meets annually at the university on the Tuesday before the third Wednesday in June. The carrying into effect of the plans approved by the board, and the erection and care of the buildings, is committed to an executive committee, consisting of five members of the board. The secure investment of all endowments of professorships, scholarships and departments of instruction, and the devising of ways and means to conduct the operations of the university, and to provide for its enlargement, according to the plans approved by the Board of Trustees, is committed to a Finance Committee, consisting of five members of the Board.

In the operations of the university there have been expended for the purchase of land and the erection of buildings since 1865, $125,000. There are four endowed professorships of $20,000 each, and $20,000 in invested scholarships. The total property of the university is therefore $225,000.

During the same time there have been applied at the University to the support and instruction of students, obtained from a great variety of sources, an aggregate of not less than $120,000.

Seven resident professors, with one living in Philadelphia, assisted by graduates of the collegiate department, conduct the instruction of the classes.

There has been a steady growth in the number of our students.

No.	of	students	1865–6..... 46
"	"	"	1866–7..... 90
"	"	"	1867–8..... 114
"	"	"	1868–9..... 114
"	"	"	1869–70..... 125
"	"	"	1870–1..... 174
"	"	"	1871–2..... 194
"	"	"	1872–3..... 202

The whole endowment and property of the university is so used as to keep the expenses of the students down to the lowest possible amount, and thus bring the advantages of the institution within the reach of

the greatest possible number. The entire charge for the use of a furnished and heated room, and for instruction, is $43 per annum. The students board in clubs conducted by themselves for $10 per month. The expenses of a student for a year, with reasonable economy on his part, need not exceed $159.

The number of graduates from the collegiate department in June, 1873, was eighteen.

This report will certify you that we are actively engaged in prosecuting the work to which you have in so many ways given your sympathies; and though the results achieved are not equal to our desires, we hope steadily to increase our numbers and elevate our standard of scholarship, and to bring into greater prominence the normal department. I had the pleasure recently of visiting the normal school at West Chester, and, through the courtesy of its principal, Mr. G. L. Maris, of witnessing its admirable arrangements and the efficient organization and working of its course of instruction. The visit gave a decided stimulus to my desire immediately to provide the like advantages for our students. The $10,000 appropriated by the legislature of 1873, to the erection of a normal school edifice, does not come in bulk so that we can put a building under contract; and the amount is inadequate to erect and furnish such a building as this interest requires. I trust that the Legislature of next year will be disposed to add to this sum $15,000 more, and thus enable the Board of Trustees to erect a building suitable for the design; and that you will feel justified in recommeding such a measure to their attention.

With many thanks for your kind interest in our work, and for the substantial aid which your influence has secured for its enlargement, I am

Yours truly, I. N. RENDALL.

BOOK NOTICES.

FIFTH READER. AMERICAN EDUCATIONAL READERS. *New Graded Series. Arranged and Graded for the Use of Schools. Pp.:* 336. *New York: Ivison, Blakeman, Taylor & Co.* 1873.

The first twenty pages or more comprise a brief but practical introduction in which are treated the various subjects that come under the general head of elocution; as inflection, monotone, emphasis, pauses, tones, exercises in modulation, movement and quality. Then follows a choice array of selections in prose and verse, each with its "word analysis and definitions," divisions not so long in any case as to be formidable. Some of the selections are also beautifully illustrated. The type is large and clear, the paper calandered, and the book has a heft about it pleasant to recognize. It is a worthy "Fifth" to the four that have already been published.

A TREATISE ON ANALYTICAL GEOMETRY. *With Applications to Lines and Surfaces of the First and Second Orders. Pp.:* 212 *Price* $1.75. *By Wm. G. Peck, LL.D, Prof. of Mathematics and Astronomy in Columbia College. New York: A. S. Barnes & Co.* 1873.

This treatise was prepared for use of the mathematical department in Columbia College, and the School of Mines. It is not so large as most works on the subject but the aim of the author has been to make it sufficiently comprehensive for profitable use by students in the ordinary college cause. The definitions of the more voluminous works have here been revised, the explanations simplified, the demonstrations abbreviated, and each branch of the subject illustrated by test problems.

LITERARY AND SOCIAL JUDGMENTS. *By W. R. Greg. Pp.:* 352. *Boston: Jas. R. Osgood & Co. Price,* $2.00. *Received through Claxton, Remsen & Haffelfinger, Phila.*

A series of papers which attracted much attention in England, and which has been republished by Messrs. Osgood & Co., for American readers. The following is a list of subjects of the several papers: Madame de Stael, British and Foreign Characteristics, False Morality of Lady Novelists, Kingsley and Carlyle, French Fiction: The Lowest Deep, Chautaubriand, M. de Tocqueville, Why are Women Redundant? Truth *vs.* Edification, Time, and Good People The criticism of the author is at times severe enough, nor does he stint his praise when he would heartily commend. Everywhere through these pages there is evidence of the scholarly thinker, and the book will be a valuable addition to the library of the student and general reader.

LATIN PRONUNCIATION, *An Inquiry into the Sounds of the Latin Language during the Classical Period. By Walter Blair, A. M., Prof. of Latin, Hampden Sidney College, Virginia. Pp.:* 136. *Price,* $1.00. *New York: A. S. Barnes & Co.* 1873.

REVIEW OF PROF. BLAIR'S "LATIN PRONUNCIATION." *From the "Southern Magazine" for October. By Prof. S. S. Haldeman, of Chickies, Pa.*

The inquiry here made by Profs. Blair and Haldeman is an interesting one to the Latin student. "Far from being lost," says Prof. Haldeman, "the pronunciation of Latin [as the Romans pronounced it] is as accessible as that of French would be with the aid of the grammar alone, because the powers of the Latin letters are given by the ancient grammarians. The chief difficulty seems to lie in the desire to warp certain letters to modern powers." The Professor is a recognized authority in the matter of pronunciation and an adept in etymology. But, really, it has never seemed to us a matter of much practical account whether the Romans called their greatest orator *Kee-ker-o*—pronouncing *c* hard as *k*, and *i* as *e*, as Profs. Blair, Haldeman and other learned men know they did—or whether, in better taste and the smoother speech of latter-day barbarians, they spoke the name more softly, *Sisero.*

ILLUSTRATED ALMANAC. *The Danbury Newsman's Almanac for* 1874, *and Other Tales. Carefully Compiled by the Author and Another Astronomer. Applicable to any Latitude that You Are. Warranted to Contain More Weather for the Price than Any Book of the Kind in the Market. Boston: Shepard & Gill. Price,* 25 *cts.*

Such funny fellows as Nast, Billings, and the Danbury man insist on embalming their choicest humor in that ever-anticipated romance, the next year's almanac. But the flavor of the spice—or, if the figure require it, its odor—however rare in January, disap-

pears before the snows of spring are melted, and we are usually ready for the next issue about a year before it is ready for us. These parties, who would have one think the years but "merry-go-rounders," subject their fun to a test dreadfully severe—in their almanacs where, *nolens volens*, we must find laugh for a twelvemonth! Perhaps the only almanacs that never wear out are the Agricultural annual of our neighbor Bear, with its "probable state of the weather"—paragraphs of most tantalizing humor, each a month long—and those issued by the philanthropy of the patent medicine men. The latter are seldom read, and the yearly issues of the former have such a striking family likeness that it would require a wiser head than Dundreary's to "find out" the difference between them. As to this little book, there is genuine fun in it—and a good laugh's a good thing, worth more than the money it costs to enjoy it.

HELPS TO HISTORY. *Historic Games, with Cards, on the History of the United States. Third Edition Revised. By D. Eckley Hunter, Supt. Schools, Princeton, Indiana. Price, 75 cents.*

The last edition of these cards continues the history of the United States from the discovery of America to the burning of Chicago. Teachers who have used them speak of them in very favorable terms.

COMPLETE LATIN GRAMMAR. *For Class Use in Schools and Colleges. By G. K. Bartholomew, M. A. Pp.: 276. Price $1.50. For Introduction, $1.00. Cincinnati: Wilson, Hinkle & Co.*

A LATIN GRADUAL. *To accompany the Latin Grammar. By G. K. Bartholomew. Pp.:* 150.

The Grammar is a text-book which excels in its general arrangement and in the manner in which the verb, noun, and adjective are presented in paradigm and synopsis. To the derivation of words careful attention is given, and in the department of syntax especially we have evidence of the handiwork of a practical teacher. The style in which the book is issued by the publishers is not surpassed by that of any other Latin grammar within our knowledge.

The lessons in the Gradual are designed to afford practice in translation for the student of the grammar. Easy Latin and a continuous narrative, with constant reference to the rules and sections of the grammar, make this a desirable text-book for the beginner.

MISCELLANY.

Now if you would know what the effects of thinking are, compare Athens with China. Here are three hundred millions of people—more than one-third the human race—whose history goes far back into remote antiquity, and who commenced with no small share of the arts and sciences, but who have added not a single particle to knowledge nor taken one step in improvement; whose only policy is to prevent innovation, and whose only power is to perpetuate succession. Here is another people, whose population does not exceed one-tenth that of Ohio, whose place can scarcely be found on the map, who commenced barbarians, yet who have given to the world new sciences and new arts, and whose mighty men infused into language

Thoughts that breathe and words that burn;

who re-conquered their conquerors by the spirit of eloquence, and whose renown has filled the earth. What makes this mighty difference? The one learned to *repeat*, the other to *think*.—*Mansfield.*

"The Master has come over Jordan,"
Said Hannah, the mother, one day;
"Is healing the people who throng Him,
With a touch of His finger, they say.
And now I shall carry the children,—
Little Rachel and Samuel and John;
I shall carry the baby, Esther,
For the Lord to look upon."

The father looked at her kindly;
But he shook his head, and smiled,
"Now, who but a doting mother
Would think of a thing so wild?
If the children were tortured by demons,
Or dying of fever, 'twere well;
Or had they the taint of the leper,
Like many in Israel."

"Nay, do not hinder me, Nathan;
I feel such a burden of care:
If I carry it to the Master,
Perhaps I shall leave it there.
If He lay His hand on the children,
My heart will be lighter, I know;
For a blessing forever and ever
Will follow them as they go."

So over the hills of Judah,
Along by the vine-rows green,
With Esther asleep on her bosom,
And Rachel her brothers between;
'Mong the people who hung on His teaching,
Or waited His touch and His word;
Through the row of proud Pharisees list'ning,—
She pressed to the feet of the Lord.

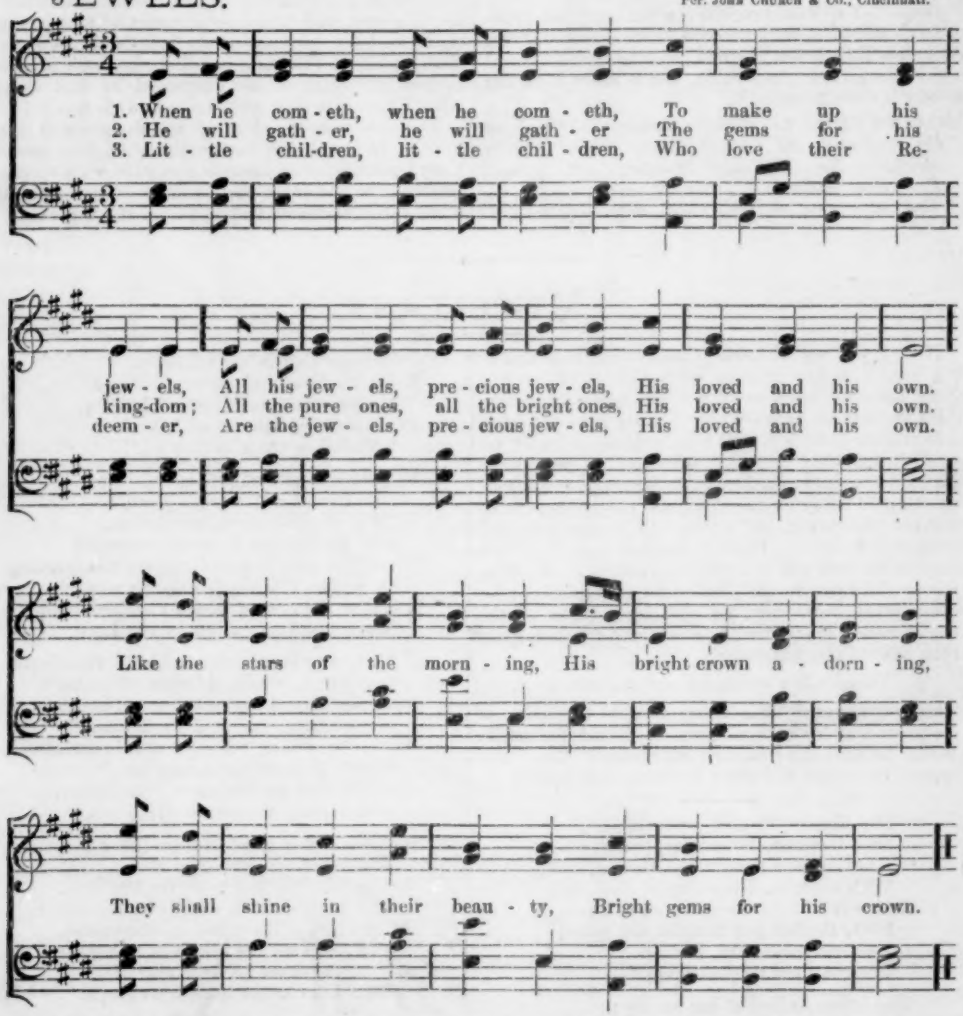
"Now, why shouldst thou hinder the Master,"
Said Peter, "with children like these?
Seest not how, from morning till evening,
He teacheth, and healeth disease?"
Then Christ said, "Forbid not the children;
Permit them to come unto me:"
And He took in His arms little Esther,
And Rachel He set on His knee.

And the heavy heart of the mother
Was lifted all earth-care above,
As He laid His hands on the brothers,
And blessed them with tenderest love;
As He said of the babes in His bosom,
"Of such are the kingdom of heaven:"
And strength for all duty and trial,
That hour to her spirit were given. —*Elim.*

THE teacher should cherish for his pupils a sentiment of profound respect, for the moral sublimity of the child is often greater than that of the man. Adolescent minds are but little concerned about secondary causes, and they consequently enjoy a simpler and readier appreciation of the First Great Cause than is generally possessed by ripened intellects. A spirit at once childlike, vigorous, watchful, patient, and devout, is the great desideratum and the great want of our teachers.

GERMAN SCHOOLS.—The earlier course of instruction in music in the Common Schools of Baden, Germany, is devoted to exercises for cultivating voice and ear; the latter to an introduction to the elements of vocal music. With the latter is connected a course of songs, partly as a basis for what is to be learned, and partly as an application of what is learned. Only such songs may be used as are intelligible to children; and particularly are religious and appropriate or proper national songs to be used The local church music is to be practiced, while pupils are to be insured a clear understanding of the text. All singing is done standing. The following is the work assigned for each of the first eight years of school life: 1. Voice and ear exercises, catching and repeating notes sung before, within limits of first five tones of the (major) scale; marking simple time; singing child songs. 2. Voice and ear exercises extending through whole octave (major); distinctions of tones as high and low, long and short, strong and weak; simple songs within an octave. 3. Representing tones by figures, exercises in the numeral

JEWELS.

From "CHAPEL GEMS." By GEO. F. ROOT.
Pub. JOHN CHURCH & Co., Cincinnati.

1. When he com - eth, when he com - eth, To make up his
2. He will gath - er, he will gath - er The gems for his
3. Lit - tle chil-dren, lit - tle chil - dren, Who love their Re-
jew - els, All his jew - els, pre - cious jew - els, His loved and his own.
king-dom; All the pure ones, all the bright ones, His loved and his own.
deem - er, Are the jew - els, pre - cious jew - els, His loved and his own.
Like the stars of the morn - ing, His bright crown a - dorn - ing,
They shall shine in their beau - ty, Bright gems for his crown.

musical) scale, exercises in double and triple time; application of foregoing in suitable songs with one part. 4 and 5. Notation of tones by round notes, with scale exercises; extension of scale above and below the single octave; and "four four" and "six eight" time, time notation and rhythm; two-part singing begun, and church songs practiced. During the last three years of this course there are continued scale exercises, raising and lowering the "pitch;" simpler scale tranformation; two and three-part singing, and church songs. The time set apart for actual instruction in music is but one hour weekly in the "short" course; from two to three hours weekly in the "extended" course. The instruction is quite elementary; but there is much school singing besides that of the "instruction hours," so that every eight-year class sings well for children. This is a grand result, when it applies to an entire population.